



EcolSciences, Inc.
Environmental Management & Regulatory Compliance

**ENVIRONMENTAL IMPACT STATEMENT
FOR
HARLINGEN VILLAGE SQUARE
BLOCK 6001, LOTS 33, 34, 34.01, 35, 35.01, & 36
MONTGOMERY TOWNSHIP
SOMERSET COUNTY, NEW JERSEY**

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I. EXECUTIVE SUMMARY

Harlingen Associates, LLC of Hillsborough, New Jersey, is proposing construction of a multifamily residential community within a 22.20± acre site known as Block 6001, Lots 33, 34, 34.01, 35, 35.01, & 36 in Montgomery Township, Somerset County, New Jersey (Figures 1 and 2). The site is located on Route 206 and was previously developed with several residences along the Route 206 frontage, which have been demolished. Vegetative communities within the site are characterized as upland forests, upland fields, and wetlands. The site is bordered to the north by residential development, the east by forests and agricultural fields, to the west by Route 206 and further by commercial development, and to the south by commercial and residential development and the Historical District of Harlingen Village. Fox Brook, a tributary of Pike Run, is located along the site's eastern boundary. The site is within the Millstone River (below/incl Carnegie Lk) watershed of the Raritan River Drainage Basin.

The development project consists of a multifamily residential development consisting of 3, two-story affordable housing apartment buildings with 18 residential units and 36, three-bedroom townhomes with driveways and two-car garages, for a total of 54 proposed residential units and associated parking. The project also includes associated sidewalks, sitting areas, a play area, bike storage, a dog park, and an enclosed trash receptacle area. The development will be accessed by a constructed entrance driveway off of Route 206. The proposed project will be located in the western portion of the site within the proposed Lots 33.01, 33.02, and 33.04, leaving the eastern portion of the site associated with Fox Brook undeveloped, as can be seen on the site plan prepared by Van Cleef Engineering Associates LLC of Hillsborough, New Jersey (Van Cleef, 2022).

Stormwater will be collected by a series of proposed drainage pipes and inlets and will be conveyed to a proposed retention basin, or wet pond, within the northeastern portion of the proposed Lot 33.01. This pond is part of the stormwater management system that was engineered to service the overall Harlingen Village Square development area. The proposed stormwater management system has been designed to be in compliance with the requirements of the NJDEP's Stormwater Management Rules (N.J.A.C. 7:8) for water quality, runoff volume control, groundwater recharge, and the Green Infrastructure Rule amendment. The design of the proposed stormwater system conforms to State standards to reduce the postconstruction rate of runoff for the 2, 10, and 100-year storm events, to improve water quality by reducing total suspended solids (TSS) by at least 80 percent, and to preserve 100% of the pre-development groundwater recharge.

The principal impacts of the project are those associated with the change in land use from formerly single family residential to multifamily residential, with an increase in impervious surfaces and the loss of an area of upland fields, upland forest, and wetlands associated with the proposed

residential community. The primary temporary impact that may occur during the construction phase of the project may be soil loss and increased dust levels. All impacts will be minimized through appropriate mitigation procedures and best management practices.

This Environmental Impact Statement (EIS) has been prepared by EcolSciences, Inc. of Rockaway, New Jersey in accordance with Montgomery Township's EIS Ordinance No. 16-8.4(c) (Environmental Impact Statement) (Montgomery Township, 1984), and is intended to support site plans prepared by Van Cleef Engineering Associates, Inc. (Van Cleef) of Hillsborough, New Jersey. The following chapters provide a project description, an inventory of existing environmental conditions on and around the site, an assessment of potential impacts associated with the proposed construction, and a description of performance controls designed to mitigate adverse impacts.

II. DESCRIPTION OF THE DEVELOPMENT PLAN

A. General Description

Harlingen Associates, LLC of Hillsborough, New Jersey, is proposing construction of a multifamily residential community within a 22.20± acre site known as Block 6001, Lots 33, 34, 34.01, 35, 35.01, & 36 in Montgomery Township, Somerset County, New Jersey (Figures 1 and 2). The site is located on Route 206 and was previously developed with several residences along the Route 206 frontage, which have been demolished. Vegetative communities within the site are characterized as upland forests, upland fields, and wetlands. The site is bordered to the north by residential development, the east by forests and agricultural fields, to the west by Route 206 and further by commercial development, and to the south by commercial and residential development and the Historical District of Harlingen Village. Fox Brook, a tributary of Pike Run, is located along the site's eastern boundary. The site is within the Millstone River (below/incl Carnegie Lk) watershed of the Raritan River Drainage Basin.

The development project consists of a multifamily residential development consisting of 3, two-story affordable housing apartment buildings with 18 residential units and 36, three-bedroom townhomes with driveways and two-car garages, for a total of 54 proposed residential units and associated parking. The project also includes associated sidewalks, sitting areas, a play area, bike storage, a dog park, and an enclosed trash receptacle area. The development will be accessed by a constructed entrance driveway off of Route 206. The proposed project will be located in the western portion of the site within the proposed Lots 33.01, 33.02, and 33.04, leaving the eastern portion of the site associated with Fox Brook undeveloped, as can be seen on the site plan prepared by Van Cleef Engineering Associates LLC of Hillsborough, New Jersey (Van Cleef, 2022).

B. Master Planning and Zoning

The site is within the Site Specific Inclusionary Zone 3 (SSIZ3) Zoning District in Montgomery Township. This zoning district was created specifically for the overall Harlingen Village Square residential development. The proposed project as designed is compatible with the zoning requirements of the SSIZ3 zone.

One of the goals of the Montgomery Township Master Plan and Development Regulations Periodic Reexamination Report (December 5, 2008) is that it “should recognize the physical characteristics of the Township and acknowledge the inherent capabilities and limitations of the land to host different types of community development at appropriate densities and intensities”. The project meets this goal as it is proposed to preserve the majority of the existing natural resources within the eastern portion of the site such as wetlands, wetland transition areas, floodways, flood

hazard areas, State open waters (SOW), and stream corridors. Within the central and southeastern portions of the site, minor encroachments to wetlands, transition areas, and the Delaware and Raritan Canal Commission's (DRCC) 100-foot stream corridor are proposed (Van Cleef, 2022). All necessary permits and approvals will be obtained prior to work in these regulated areas to comply with the applicable regulations.

One of the goals of Somerset County's 1987 Master Plan is to "focus future development opportunities in and around logical areas of existing development by encouraging a variety of housing types, convenient employment opportunities, and investments in utilities...". The project is consistent with this County goal as it proposes residential communities in an area with existing residential and commercial development. In addition to the residential development, the project will include a sewage pump station within the southeastern portion of the site and off-site force main connecting the development to the Township's sewer system, which will aid in improvements to municipal utilities.

In the New Jersey State Development and Redevelopment Plan, (hereafter referred to as the "State Plan," the site is mapped in the Fringe Planning Area (PA3) (New Jersey State Planning Commission, 2001). This Planning Area, having predominantly rural landscapes, is meant to serve as a transition between rural and suburban landscapes. The State Plan's intentions within this Planning Area are to accommodate growth in Centers; protect the Environs primarily as open lands; revitalize cities and towns; protect the character of existing stable communities; protect natural resources; provide a buffer between more developed Metropolitan and Suburban Planning Areas and less developed Rural and Environmentally Sensitive Planning Areas; and confine programmed sewers and public water services to Centers (New Jersey State Planning Commission, 2001). The currently proposed is compatible with the NJ State Plan, as it is proposed in a primarily developed commercial and residential area.

C. Sanitary Sewage

Wastewater for the project will be conveyed to the Pike Run Wastewater Treatment Plant. It is estimated that the proposed development will generate 15,375 gallons per day (average daily flow) of wastewater (Van Cleef, 2022). The treatment plant has capacity for these increased flows and a "will serve" letter for the project will be obtained. As noted above, the project will include a sewage pump station within the southeastern portion of the site and off-site force main connecting the development to the Township's sewer system. All required approvals for the pump station and force main connection will be obtained prior to construction.

D. Potable Water Supply

Potable water for the proposed development will be obtained from the New Jersey American Water Company by a connection to an existing water main located beneath Route 206. The estimated demand for potable water for the proposed care facility is 10,305 gpd (average daily demand) (Van Cleef, 2022). There is available water supply for these increased flows and a “will serve” letter for the project will be obtained.

E. Stormwater Management Facilities

Stormwater will be collected by a series of proposed drainage pipes and inlets and will be conveyed to a proposed retention basin, or wet pond, within the northeastern portion of the proposed Lot 33.01. This pond is part of the stormwater management system that was engineered to service the overall Harlingen Village Square development area. The proposed stormwater management system has been designed to be in compliance with the requirements of the NJDEP’s Stormwater Management Rules (N.J.A.C. 7:8) for water quality, runoff volume control, groundwater recharge, and the Green Infrastructure Rule amendment. The design of the proposed stormwater system conforms to State standards to reduce the postconstruction rate of runoff for the 2, 10, and 100-year storm events, to improve water quality by reducing total suspended solids (TSS) by at least 80 percent, and to preserve 100% of the pre-development groundwater recharge.

Additionally, because the proposed project’s location is within Review Zone B of the DRCC and meets the criteria to be characterized as a Major Project under N.J.A.C. 7:45, an approval from the DRCC is required regarding the proposed stormwater management system. An application for the approval of the DRCC will be submitted.

F. Utilities Plan

Additional utilities to be provided to the proposed development include electric, gas, and communications. All utilities will be located underground.

G. Solid Waste Plan

Construction debris generated on-site will be removed and transported to an approved disposal site by a licensed waste hauler, in accordance with State and local requirements. Solid waste generated by the proposed development, as well as recycled materials, will be collected by a private hauler and transported to an approved disposal facility or recycling facility, respectively.

III. INVENTORY OF EXISTING NATURAL RESOURCES

A thorough inventory of environmental conditions is a fundamental prerequisite to an understanding of a land tract's ecological and cultural history, current condition, and suitability for alternative future uses. The inventory of existing environmental conditions in this chapter is divided into systematic and logical subsections that treat each aspect of the site and vicinity in detail, and collectively define the constraints to future land use.

A. Geology

The portions of New Jersey that have similar sequences of rock types, geological structures, and geological history have been characterized as Physiographic Provinces - major areas of the state that have experienced specific geological histories and that have similar characteristics at present. From northwest to southeast across the State, the major physiographic provinces are: Appalachian Ridge and Valley, Highlands, Piedmont, and Coastal Plain. Each of these physiographic provinces has regional subdivisions, and each is also a continuation of larger regions in the northeastern United States (Widmer, 1964; Collins and Anderson, 1994).

The Township of Montgomery is located within the Piedmont Physiographic Province (NJDEP, Last Updated September 9, 2022). This province constitutes approximately 20 percent or 1,600 square miles in New Jersey. It is mainly underlain by slightly folded and faulted sedimentary rocks of Triassic and Jurassic age (240 to 140 million years old) and igneous rocks of Jurassic age (Dalton, 2003). The Piedmont Province is predominantly characterized as a low, rolling plain divided by a series of higher ridges (Dalton, 2003).

Based on mapping of NJ-GeoWeb, last updated September 9, 2022, surficial geology consists of two deposits: Alluvium deposits and Weathered Shale, Mudstone, and Sandstone deposits. The majority of the site consists of the Weathered Shale, Mudstone, and Sandstone deposit, which consists of silty sand to silty clay with shale, mudstone, or sandstone fragments; is reddish brown, yellow, light gray; and has as much as 10 feet thick on shale and mudstone, and 30 feet thick on sandstone (NJDEP, Last Updated September 9, 2022). The Alluvium deposit is located within the eastern portion of the site and consists of sand, gravel, silt, minor clay and peat; it is reddish brown, yellowish brown, brown, gray; and is as much as 20 feet thick. It also contains variable amounts of organic matter and is deposited in modern floodplains and channels (NJDEP, Last Updated September 9, 2022).

Below the surficial deposits, the site is underlain by the Passaic Formation (JTrp). The Passaic Formation consists of siltstone and shale (NJDEP, Last Updated September 9, 2022). According to NJ-GeoWeb (NJDEP, 2022), there are no bedrock outcrops on or adjacent to the site.

B. Topography

The topography of a site or area is a description of the variation in elevation of the land surface with horizontal distance; topography is generally described by contour maps where points of equal elevation are connected by smooth contours. The surficial topography of a site or area reflects the underlying geology as altered by geomorphological processes; the surficial topography, in turn, directly influences the drainage patterns, watercourses, soils, and biological communities evolving on the particular site.

The site is relatively level to moderately sloping with elevations ranging from approximately 101 feet in the northwest corner of the site, to approximately 64 feet in the northeastern corner of the site. Overland runoff is toward the east towards Fox Brook, located along the eastern border of the property. Fox Brook and its tributaries have been classified by the NJDEP as FW2-NT (non-trout) waters (NJDEP, 2002).

C. Soils

Soils are formed through the interaction of a variety of physical, chemical, and biological factors that include climate, parent material, topography, biological activities, and time. The degree to which any or all of these factors affects the local soil characteristics is quite variable, generally leading to the formation of a mosaic of soil types in any particular locality. In the past, the United States Department of Agriculture has, through the Soil Conservation Service, mapped soils in detail; for New Jersey, and the results of these soil surveys are issued for each county. Currently, the USDA has updated their soils information, and it can be accessed via the Web Soil Survey. A custom report can be generated for a site, and characteristics and suitabilities of on-site soils can be gleaned from the additional information on the website.

According to the USDA NRCS Web Soil Survey (USDA NRCS, 2019) (Figure 3), four soil mapping units occur on the subject property: Klinesville channery loam, 6 to 12 percent slopes (KkoC); Penn channery silt loam, 2 to 6 percent slopes (PeoB); Reaville silt loam, 2 to 6 percent slopes (RehB); and Rowland silt loam, 0 to 2 percent slopes, frequently flooded (RorAt). A listing of soil characteristics, limitations, and suitabilities is presented in Table 1. A brief description of the soil series making up the map units per the NRCS is provided as follows:

Klinesville Series (KkoC) - This soil series consists of somewhat excessively drained soils. These soils occur on the shoulders of hills. They formed from fine-loamy residuum weathered from shale. The depth to the seasonal high water table is greater than 80 inches, and the depth to bedrock is 11 inches. The KkoC map unit is

sloping, to steeply sloping, and composed of 85% Klinesville and similar soils, and 15% of minor components. Klinesville soils are not on the New Jersey hydric soils list.

Penn Series (PeoB) -This soil series consists of well drained soils. These soils occur on hills. They formed in fine-loamy residuum weathered from acid reddish shale, siltstone, and fine-grained sandstone. The depth to the seasonal high water table is greater than 80 inches, and the depth to bedrock is 30 inches. The PeoB map unit is gently sloping, and composed of 85% Penn and similar soils, and 15% of minor components. Penn soils are not on the New Jersey hydric soils list.

Reaville Series (RehB) -This soil series consists of somewhat poorly drained soils. These soils occur on interfluvies. They formed in interbedded fine-grained fine-loamy residuum weathered from sandstone and siltstone and/or shale. The depth to the seasonal high water table is 18 inches, and the depth to bedrock is 23 inches. The RehB map unit is very gently sloping, and composed of 85% Reaville and similar soils, and 15% of minor components. Reaville soils are not on the New Jersey hydric soils list.

Rowland Series (RorAt) -This soil series consists of moderately well drained soils. These soils occur on flood plains. They formed in red and brown fine-loamy alluvium derived from sandstone and shale and/or conglomerate. The depth to the seasonal high water table is 24 inches, and the depth to bedrock is >79 inches. The RorAt map unit is very gently sloping, and composed of 85% Rowland, frequently flooded, and similar soils, and 15% of minor components. Rowland soils are not on the New Jersey hydric soils list.

Table 1: Soil Characteristics, Limitations, and Suitabilities

Block 6001, Lots 33, 34, 34.01, 35, 35.01, & 36

Township of Montgomery

Somerset County, New Jersey

Parameter	Klinesville channery loam, 6 to 12 percent slopes (KkoC)	Penn channery silt loam, 2 to 6 percent slopes (PeoB)	Reaville silt loam, 2 to 6 percent slopes (RehB)	Rowland silt loam, 0-2 percent slopes, frequently flooded (RorAt)
Texture	channery loam	silt loam	silt loam	silt loam
Slope (%)	6 to 12	2 to 6	2 to 6	0 to 2
Depth to Bedrock (in.)	11 (28 cm)	30 (76 cm)	23 (58 cm)	>80 (>200 cm)
Depth to Seasonal High Water Table (in.)	>80 (>200 cm)	>79 (>200 cm)	18 (46 cm)	24 (61 cm)
Permeability/Hydraulic Conductivity (Ksat) (micrometers/second)	28.2300	26.7350	8.3510	15.5758
Available Water Capacity (cm./cm. soil)	0.10	0.14	0.19	0.12
pH	5.3	5.0	5.1	5.3
Erosion (K Factor)	0.17	0.20	0.55	0.43
Limitations for Commercial Buildings	Very limited	Somewhat limited	Somewhat limited	Very limited
Limitations for Local Roads and Streets	Very limited	Somewhat limited	Somewhat limited	Very limited

Source: USDA NRCS, 2022

D. Ground Water Quantity and Quality

Ground water is all water within the soil and subsurface strata that is not at the surface of the land. It includes water that is within the earth that supplies wells and springs. Ground water resources are often functionally linked to overlying land areas and surface water bodies; ground water is often recharged through "outcrop" areas at the land surface and ground water discharges ("seeps") may contribute to base flows of streams and rivers.

The ground water yields of any particular geological formation are a function of the porosity and permeability of the material comprising the formation (consolidated rock or unconsolidated deposits). Porosity describes the water-containing spaces between individual mineral grains, while

permeability is the ease or difficulty with which water is transmitted through interconnecting spaces in the formation. Formations lacking open spaces between the mineral grains have both low porosity and low permeability. Weathering and cracking of the parent bedrock can induce secondary porosity in the formation; water can accumulate and move through these fractures in the primary rock formation.

The project site is underlain by the Brunswick aquifer system (NJDEP, Last Updated September 9, 2022). The Brunswick aquifer system consists of sandstone, siltstone, and shale of the Passaic, Towaco, Feltsville, and Boonton Formations. Ground water is stored and transmitted in fractures. Water is normally fresh, slightly alkaline, non-corrosive and hard. Calcium-bicarbonate type waters dominate. Subordinate calcium-sulfate waters are associated with high total dissolved solids. This aquifer includes conglomerate facies (bac) along the northwest margin of the basin (G.C. Herman et al., 1998). This portion of the Brunswick aquifer system within the site has been given several different rankings as shown in Figure 6. A small portion of the western part of the site has been given an aquifer rank of C, where aquifer recharge rate is 100 to 250 gallons per minute. This same portion of the site has been given a groundwater recharge rank of C, with a median yield from 9 to 11 inches per year. The southwestern portion of the site also has an aquifer rank of C. The groundwater recharge rank for this portion of the site is D, with a median yield of 1 to 8 inches per year. The eastern portion of the site has aquifer and groundwater recharge ranks of W, where there are occurrences of wetlands or SOWs and therefore, no recharge is calculated. The northern and central portions of the site have an aquifer recharge rank of C, with a rate of 100 to 250 gallons per minute; the groundwater recharge rate for this portion of the site is B, with a rate of 12 to 16 inches per year.

E. Surface Water Quantity and Quality

Surface waters include lakes, rivers, ponds, and streams - water bodies at the surface of the land. These waters serve as valuable habitats for aquatic organisms; collect, store, and distribute water from rainfall; and serve as important aesthetic and recreational features.

Overland runoff at the site is mainly from west to east, following the slight contours of the existing forested areas. The closest mapped surface water feature to the site includes Fox Brook, located along the eastern boundary of the site. Fox Brook is a tributary to Pike Run, which is located approximately 0.74 miles downstream of the site. Fox Brook, Pike Run, and their tributaries are classified by the NJDEP as Freshwater 2, Non-Trout (FW2-NT) surface waters (NJDEP, 2022). The site is located within the Millstone River watershed of the Raritan River Drainage Basin.

By definition, FW-2 waters are suitable for public potable water supply after required treatment. This classification requires that waters be acceptable for primary contact recreation,

industrial and agricultural use, and maintenance and migration of the established biota. The Non-Trout (NT) suffix indicates that the waters do not possess the properties suitable for the maintenance of trout species, i.e., high dissolved oxygen levels, relatively low summer temperatures, and low pollutant loadings. However, more tolerant fish species, particularly warm-water species, may flourish in such waters.

Fox Brook is a regulated waterway under the NJDEP Flood Hazard Area (FHA) Control Act Rules (N.J.A.C. 7:13 et seq.) and will thus have an associated riparian zone. The NJDEP FHA Control Act Rules require a riparian zone or buffer adjacent to all regulated streams, waterbodies, etc. The riparian zones are 50, 150, or 300 feet in width along each side of regulated surface waters throughout the State, and are based on several factors as described below:

A 300-foot-wide riparian buffer is required adjacent to:

- All waters with a C1 surface water quality classification.
- Any upstream tributaries to a C1 water located within the same HUC-14 drainage area.

A 150-foot wide riparian buffer is required adjacent to:

- Trout production waters and all upstream waters regardless of distance from the segment classified as trout production.
- Trout maintenance waters and all upstream waters within one mile.
- Waters flowing through an area containing documented habitat for threatened/endangered species that are critically dependent on the regulated water for survival and all upstream waters within one mile.

Regulated waters not identified above would have a 50-foot riparian zone. Based on review on NJ-GeoWeb, Fox Brook and its upstream tributaries are anticipated to receive a 50-ft riparian zone because of its classification as a FW2-NT. The on-site portion of Fox Brook is also greater than 1 mile upstream of any threatened or endangered species critically dependent on regulated waters for survival, which is confirmed by a letter from the NHP, dated October 27, 2022 (NHP File No.: 22-4007446-26043, Attachment C). The extent of the anticipated riparian zone is shown on the plans prepared by Van Cleef (2022).

As previously stated, the site is located within the DRCC's Review Zone. Fox Brook which flows along the eastern boundary of the site, has an associated 100-foot stream corridor. This corridor extends 100-feet from the flood hazard area on both sides of the stream. The purpose of the stream corridor is to "function as a buffer for the water course's ecological health and as a natural area" (DRCC, n.d.). The extent of this buffer is shown on the plans (Van Cleef, 2022).

F. Floodways and Floodplains

The area inundated by the flood waters of a river or stream is termed the floodplain. Within the floodplain can be found several subdivisions: the channel, where normal, non-floodplain flow is confined; the floodway, or terrestrial areas on the margins of the channel that show permanent terracing effects of repeated flooding; and the flood fringe, or areas landward of the floodway that may be inundated during more severe (and less frequent) storms. Taken together, these areas constitute the flood hazard area around a river or stream.

As previously mentioned, overland runoff is generally to the east towards Fox Brook, which flows along the eastern boundary of the site. Fox Brook has been classified by the NJDEP as FW2-NT (Non-Trout) water (NJDEP, 2020). According to FEMA mapping (Community Panel No. 34035C0233E effective September 28, 2007), the eastern portion of the site is mapped within floodplain areas without base flood elevation (BFE) (Zone A).

G. Vegetation

Vegetation is the plant life or the total plant cover that is found in a specific area, whether indigenous or introduced by humans. The Piedmont Physiographic Province of New Jersey contains a moderately diverse mixture of major terrestrial plant habitats, including freshwater marshes, swamps and floodplains, upland valleys and slopes, upland ridges, and rock outcrops (Collins and Anderson, 1994). This habitat diversity results in a mosaic of plant communities occurring in small areas, a situation rather different from the more homogeneous habitat conditions and plant communities found in more southern portions of the state, and less inherently "patchy" than habitats of more severe topographic relief in the Highlands and Ridge and Valley provinces to the north.

The Natural Heritage Program (NHP) of the NJDEP Office of Natural Lands Management identifies the state's most significant natural areas through a comprehensive inventory of rare plant and animal species and representative ecological communities (NHP, 2021). Through this program, Natural Heritage Priority Sites were identified which include critically important areas to conserve New Jersey's biological diversity, with particular emphasis on rare plant species and ecological communities. A letter from the NHP, dated October 27, 2022, does not report any Natural Heritage Priority Sites on or within the immediate vicinity of the site (NHP File No.: 22-4007446-26043, Attachment C).

In addition to Natural Heritage Priority Sites, the NHP Database includes Natural Heritage Grid Maps, which provide a general portrayal of the geographic location of rare plant species and rare ecological communities for New Jersey, without providing sensitive detailed location information. Each grid that is mapped is classified into one of three categories: 'S', which indicates

the location of the rare plant and/or ecological community is precisely known within the grid; ‘M’, which indicates the location of the rare plant and/or ecological community is only known within 1.5 miles; or ‘BOTH’, which indicates the grid includes locations of rare plants and/or ecological communities that are precisely known and less precise occurrences are found (NJDEP, Last Updated September 9, 2022). Based on mapping of NJ-GeoWeb, the site is not within or within the immediate vicinity of any Natural Heritage Grids.

Based upon species composition, soils, and apparent hydrology noted during the field investigation in May 2019, the site consists of upland field, upland forest, and palustrine wetland vegetation. The extent of each major vegetative community are depicted in Figure 7. These communities are briefly described below.

Upland Forest - Canopy vegetation is dominated by honey locust with associates of pin oak, black cherry, Eastern red cedar, black walnut, and white ash. The woody understory commonly includes Japanese honeysuckle, wine berry, and multiflora rose. The groundcover is dominated by Japanese stilt grass and Japanese honeysuckle. The ground cover also includes Virginia knotweed, white snakeroot, and garlic mustard.

Upland Field – This community is absent of canopy vegetation and contains an understory consisting of silky dogwood, gray dogwood, multiflora rose, Allegheny blackberry, and Virginia creeper. The ground cover is a mix of Kentucky blue grass, tall goldenrod, small-flowered agrimony, soft rush, garden yellow rocket, reed canary grass, and teasel.

Floodplain Wetland (PF/SS/EM) - This community is limited to the eastern boundary of the property. The canopy is a mix of pin oak, silver maple, white ash, American elm, and boxelder. The woody understory consists of buckthorn, pin oak, silky dogwood, autumn olive, and multiflora rose. Common herbs include Japanese stilt grass, reed canary grass, sensitive fern, and jewelweed.

Palustrine emergent wetland (PEM) - This swale community is dominated by reed canary grass, although a small percent of garden yellow rocket was also observed.

H. Wetlands

Wetlands are lands where water saturation is the dominant factor determining the nature of soil development and the types of plants and animal communities living in the soil and on its surface. Wetlands are transitional areas between terrestrial and aquatic systems and are unique

biological habitats of socioeconomic value. Wetlands moderate extremes in water flow, aid in the natural purification of water, and may be areas of groundwater recharge. According to regulations promulgated by the United States Army Corps of Engineers (COE) and the Environmental Protection Agency (EPA) (33 CFR Section 323.2 and 40 CFR Section 230.2, respectively) and pursuant to the New Jersey Freshwater Wetlands Protection Act (1987), wetlands are those areas that are inundated or saturated with surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted to life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

The limits of freshwater wetlands were delineated on the site as part of a Letter of Interpretation (LOI) Application to NJDEP. NJDEP issued an LOI for the site on January 7, 2020, which verified the extent of freshwater wetlands and transition areas (File No. 1813-03-0014.2 FWW190001, Attachment C). This letter characterizes on-site wetlands as ordinary and intermediate resource value. Intermediate resource value wetlands have a standard 50-foot transition area and ordinary resource value wetlands have no associated wetland transition area. The on-site wetlands and transition areas are depicted on the site plans (Van Cleef, 2022).

I. Wildlife

The utility of an area as wildlife habitat depends on many factors. All wildlife species require food, water, cover, and space. The relative abundance or lack of these resources in relation to each species' particular requirements will, in part, determine the species composition and distribution of a particular area. In addition, the types of vegetative communities present, the size, shape, and complexity of the habitat(s), and the surrounding land uses will further interact to determine the success of various wildlife species at the location being considered. Some wildlife species have demonstrated great adaptability and tolerance to the human presence; others are less able to tolerate such activities and are displaced to more suitable habitats, if such are available and accessible.

The upland field and forested areas on-site could potentially serve as a nesting, feeding, and/or resting location for both resident and migrating birds, and may also provide suitable foraging habitat for mammals including mice, voles, shrews, raccoons, Virginia opossum, red fox, striped skunk, and white-tailed deer. The site's wetlands and the stream corridor along the site boundary provide potential habitat and foraging area for threatened and endangered species. Still, several of the site's features combine to limit its potential to support a large and diversified wildlife population. The site is located within a developed portion of the township and is surrounded by commercial and residential development and agricultural fields. Overall, the site has potential to

support a large and diversified wildlife population due to the large tracts of open space on-site and within the adjacent property to the east, for wildlife species that are tolerant of human disturbance.

The NJDEP Landscape Project (Version 3.3), the use of which was adopted by NJDEP in May 2017, is a wildlife habitat mapping program that is used to identify and map critical wildlife habitats for endangered, threatened, and special concern species. The maps are based on land use classification and rare species locations. Each mapped area appears as a different shaded color (5 Ranks) indicating its relative priority ranking. Rank 1 is the lowest priority ranking, while Rank 5 is the highest priority ranking. Rank 1 is the NJDEP's lowest priority ranking and is defined as areas meeting the minimum size requirements but with no documented sightings of threatened or endangered species. Rank 2 contains records for priority species, which are species of special concern. Ranks 3, 4, and 5 indicate that the identified land cover type has been identified as providing habitat for State threatened (Rank 3), State endangered (Rank 4), or Federally threatened or endangered (Rank 5) species (NJDEP DFW ENSP, 2017).

According to the NJDEP Landscape Project (Version 3.3) the majority of the site is mapped as Rank 1 and Rank 2 habitat which does not include any records of threatened or endangered species (Figure 4). The eastern portion of the site, primarily along Fox Brook, has been mapped as Rank 5 habitat. The Rank 5 habitat contains occurrences of the federally listed northern myotis, also known as northern long-eared (NLE) bat (*Myotis septentrionalis*), foraging habitat for the State endangered bald eagle (*Haliaeetus leucocephalus*), and foraging habitat for the special concern great blue heron (*Ardea herodias*) (Figure 4).

In a response letter from the Natural Heritage Program (NHP), dated October 27, 2022, confirms the Landscape Project mapping for the site and includes records for the on-site occurrences of the federally listed NLE bat (*Myotis septentrionalis*) habitat, foraging habitat for the State endangered bald eagle (*Haliaeetus leucocephalus*), and foraging habitat for the special concern great blue heron (*Ardea herodias*) (NHP File No.: 22-4007446-26043, Attachment C).

A review of the United States Fish and Wildlife Service (USFWS) IPaC (Information for Planning and Consultation) interactive map for the site and the IPaC resource list generated for the site area by the IPaC system indicate the potential presence of the Federally-endangered Indiana bat (*Myotis sodalis*), the Federally-threatened NLE bat (*Myotis septentrionalis*), the proposed endangered tricolored bat (*Perimyotis subflavus*), and the candidate species monarch butterfly (*Danaus plexippus*) within the vicinity of the project site. Additionally, the IPaC review also indicated that there are no critical habitats within the proposed project area, although critical habitats have been established for Indiana bat. No additional Federally-listed flora or fauna species, or flora

or fauna species proposed for listing, are known to occur within the vicinity of the site (USFWS, 2022) (see USFWS IPaC Resource List in Attachment C).

A review of the USFWS New Jersey Municipalities with Hibernation or Maternity Occurrence of Indiana Bat or Northern Long-eared Bat lists Montgomery Township as having known maternity occurrences for NLE bat (USFWS, Revised August 26, 2022) (see USFWS Bat Municipalities List in Attachment C).

J. Distinctive Scenic and/or Historic Resources

Scenic/Historic/Cultural resources are man-made or man-modified features of the environment, including objects, structures, site and districts deemed to be of cultural significance. Such resources may be pre-historic or historic in age and are often worthy of preservation to provide present and future generations with a sense of the peoples who once lived and worked in a particular locality.

According to the New Jersey and National Registers of Historic Places, no historic or cultural resources are located on-site (NJDEP, NHR, HPO, 2022). However, the site is adjacent to the Harlingen Historic District (ID#2548) (Last updated September 9, 2022). There are also two historic properties adjacent to the site: The Railroad just south of the site and the Wilson Mettler Farmstead (ID#2555) just west of the site (NJDEP, Last updated September 9, 2022). Also, based on a review of NJDEP's GeoWeb (Last updated September 9, 2022), approximately the western third of the site adjacent to Route 206 lies within Archaeological Site Grid: CQ126 (Figure 5). Archaeological grid sites consist of resources which are below ground. In New Jersey, archaeological sites typically contain prehistoric Native American sites, remnants of historic sites such as mills, battlefields, and infrastructure, and underwater sites such as shipwrecks (NJDEP, HPO, 2019).

K. Existing Development Features

As previously stated, the site was previously developed by residential structures which have been demolished, and is characterized by upland forests, upland fields, and wetlands. The site is located within a residentially and commercially developed area, as it is bordered to the north by residential development, the east by Fox Brook, forests, and agricultural fields, to the south by commercial and residential development within the Harlingen Historic District, and to the west by Route 206 and further by commercial development.

IV. ASSESSMENT OF ENVIRONMENTAL IMPACT

This chapter addresses the potential impacts to the environmental resources of the site and surrounding areas that could result from the proposed development. Potential impacts are first discussed generally, then according to the specific topics set forth in the preceding chapter that inventoried environmental characteristics of the site. The incorporation of mitigation measures during construction and operational phases of the proposed project are cited here in the context of the potential impacts; reference is made again to these mitigating measures in the following chapter.

In general, the principal environmental impacts associated with the construction phase of a development of this type, result from temporary disturbances to soils and vegetation. In the absence of appropriate control measures, clearing of vegetated tracts of land for construction and access to construction sites could reduce the productivity of the soil and lead to sedimentation and dust. Precipitation falling on disturbed areas could tend to erode fine soil particles and, in the absence of appropriate controls, increase sediment loadings to areas receiving stormwater runoff. As will be detailed below, these potential adverse effects will be minimized by adherence to the Soil Erosion and Sediment Control Plan, as approved by the local district of the Soil Conservation Service.

The principal environmental impact associated with the operational phase of the proposed project would be the change in land use and the direct and indirect influences on the surrounding communities associated with the use of the site as a multifamily residential development. Construction of the development will convert approximately 13 acres of non-impervious, upland field, upland forest, and palustrine wetlands areas to 3, two-story affordable housing apartment buildings and 36, three-bedroom townhomes with associated driveways, parking, stormwater management facilities, and community spaces. The project will also include the construction of a sewer pump station and sewer force main connecting to the existing sewer system. This use is consistent with the zoning and land use plans for the site area.

Potential impacts on specific natural or human resources are discussed in the following sections.

A. Geology

Potential impacts to the site's geological integrity are typically related to the location and extent of bedrock disturbance resulting from the construction phase. According to information contained with the Custom Soil Resource Report for Somerset County (USDA NRCS, 2022), the mapped Klinesville, Penn, and Reaville soils may have the upper layers of bedrock occurring within 1-3 feet of the ground surface. Therefore, some bedrock may be encountered during construction of the commercial development, including underground utilities, etc. It is expected that any rock

encountered during construction can be removed by conventional means such as a mechanized rock hammer. Thus, no significant impacts to the project area's geological integrity are anticipated from the construction of the proposed development.

B. Topography

Potential impacts to the topography of the project site are related to the extent of excavation and/or filling required to achieve the desired topography for the proposed project. As indicated on the site plans, some modifications to the existing topography are proposed. Minor cutting and grading will be required throughout most of the site for the proposed development. The most significant impact to grading will be for the construction of the wet pond in the northeastern portion of the proposed Lot 33.01. Throughout the site, soil erosion and sediment control measures will minimize soil loss and erosion wherever grading is proposed. Where changes to existing topography are planned, the proposed contours will be graded to meet the existing contours. Overall, the grading plan calls for no significant change to the existing site conditions.

C. Soils

In the absence of appropriate control measures, construction activities may result in both short-term and long-term impacts related to soil loss. Removal of topsoil and organic layers could reduce the productivity of the soils, remove ground cover vegetation, and create unsightly conditions. During construction, soil disturbance will occur over most of the site area, and minimal soil loss and associated adverse impacts will be minimized by strict adherence to the measures specified in the Soil Erosion and Sediment Control Plan, to be submitted to the local Soil Conservation District.

These soil erosion measures include inlet protection, a stabilized construction entrance, silt fencing, and soil stabilization post-construction as shown on the Soil Erosion and Sediment Control Plan proposed by Van Cleef. Permanent vegetation will be established as soon as possible after final grading, as specified in the site plans. In areas where grading is necessary, rapid stabilization of all disturbed soil areas will minimize adverse effects related to soil loss or erosion. For a complete description of the soil erosion and sediment control measures, please refer to the plans prepared by Van Cleef (2022).

No long-term effects on the soils of the site are anticipated. The rapid stabilization of soils with vegetative cover, including ground and tree/shrub vegetation will minimize long-term soil losses from the site.

D. Ground Water Quantity and Quality

Construction of the proposed project is not expected to have an adverse impact on the ground water resources of the project area. No ground water withdrawal or wastewater disposal is proposed within the site, and no private wells will be used to supply potable water for the project. Wastewater generated by the proposed development will be conveyed to an off-site sewage treatment plant via a proposed on-site pump station and off-site force main. This off-site treatment and disposal of wastewater by a regional municipal facility will eliminate the potential for contamination of ground water by wastewater effluent.

There will be an increase in impervious surfaces of 4.575 acres because of the proposed development. The stormwater management system has been designed to be in compliance the NJDEP's Stormwater Management Rules (N.J.A.C. 7:8) for water quality, runoff volume control, groundwater recharge, and the Green Infrastructure Rule amendment. The design of the proposed stormwater system conforms to State standards to reduce the postconstruction rate of runoff for the 2, 10, and 100-year storm events, to improve water quality by reducing total suspended solids (TSS) by at least 80 percent, and to preserve 100% of the pre-development groundwater recharge. Additional details of the proposed stormwater system are presented in the Stormwater Management Plan prepared by Van Cleef.

E. Surface Water Quantity and Quality

The construction of the proposed project is expected to have an insignificant impact on surface water resources. Potential short-term impacts to surface water quality are generally associated with soil loss, erosion, and sedimentation during construction activities. Although there are no surface water resources on or adjacent to the residential project area, a Soil Erosion and Sediment Control Plan has been developed to minimize sediment transport from the construction areas. Through the use of silt fencing, inlet protection, and other measures during construction, sediment loading will be minimized. These measures will retain disturbed soil/sediment particulates within the areas of construction and will mitigate the potential for sediment being transported off-site.

As discussed in Section III, E., the site is located within the DRCC's Review Zone. Fox Brook which flows along the eastern site boundary, has an associated 100-foot stream corridor, which extends 100-feet from the flood hazard area on both sides of the stream. A portion of the proposed pump station and proposed force main, encroaches into this stream corridor as shown on the plans (Van Cleef, 2022). Therefore, a review of stream corridor impacts is to be submitted to the DRCC.

The stormwater management system has been designed to be in compliance the NJDEP's Stormwater Management Rules (N.J.A.C. 7:8) for water quality, runoff volume control, groundwater recharge, and the Green Infrastructure Rule amendment. The design of the proposed stormwater system conforms to State standards to reduce the postconstruction rate of runoff for the 2, 10, and 100-year storm events, to improve water quality by reducing total suspended solids (TSS) by at least 80 percent, and to preserve 100% of the pre-development groundwater recharge. Further details of the proposed stormwater system are presented in the Stormwater Management Report prepared by Van Cleef which was submitted with the site plan application.

F. Floodways and Floodplains

There are no residential development project activities proposed within the flood hazard area or the riparian zone. Portions of the proposed sewer and off-site force main connection are located within the regulated floodplain. All necessary permits and approvals will be obtained prior to work and are listed in Table 2.

G. Vegetation

Construction for the proposed development will require removal of existing vegetation from portions of the site proposed for development. The total area of disturbance for the proposed project is approximately 13.34 acres (581,090.4 sq. ft.), mostly within upland fields and upland forests however, there are minor encroachments into wetlands and transition areas. The project proposes to clear 5.605 acres of trees. The Township of Montgomery requires a permit for the clearing of trees. An application for a permit for tree clearing will be submitted to the Montgomery Township Enforcing Officer and demonstrate compliance with Township Ordinance § 14-3.

A landscaping plan will be implemented to enhance the aesthetic features of the development and to serve as a visual buffer from adjacent properties and Route 206. The plan provides for the installation of an aesthetically pleasing arrangement of evergreen, shade, and ornamental trees, and evergreen and deciduous shrubs, generally along access drives, in parking lot islands, and around the buildings, patios, walkways, open space, and community areas. The landscape plan also proposes installation of a row of evergreen trees along the western site boundary adjacent to Route 206 and surrounding the proposed wet pond. For additional details with respect to the proposed plantings, please see the Landscape Plan in the site plans prepared by Van Cleef (2022).

Because minor encroachments to wetlands and wetland transition areas are proposed for the development of the site, an application for Freshwater Wetlands General Permit Nos. 2 for underground utilities, 7 for disturbance of man-made swales, & a 10A for minor road crossings, as

well as a Transition Area Waiver (TAW) Averaging Plan will be submitted to NJDEP's Division of Land Resource Protection. A summary of all necessary permits and approvals for the proposed project is included in Table 2.

H. Wildlife

The construction of the proposed project is not expected to have a significant adverse impact to local wildlife species. Noise, heavy equipment, and human activity during the construction phase of the project will cause most mobile wildlife species to move from the site into adjacent undeveloped areas. Any impacts to wildlife are expected to be minimal because, as no impacts to critical habitat or areas containing threatened or endangered species are proposed and wildlife species likely to be present on the site are those tolerant of human presence.

As discussed in Section III. I., NLE bat has been mapped on-site by the Landscape Project and is listed by USFWS for maternity occurrences in Montgomery Township, and the Indiana bat is listed by the USFWS IPaC as potentially present in the vicinity of the site, potential impacts to these species need to be addressed. In the LOI dated January 7, 2020 (File No.: 1813-03-0014.2, Attachment C), NJDEP evaluated the site for threatened and endangered species and determined that on-site wetlands do not contain critical habitat related to either bat species, resulting in the on-site wetlands to be of ordinary or intermediate resource value. Intermediate resource value wetlands (as well as ordinary resource value) are not associated with threatened or endangered species.

Additionally, the proposed project will require freshwater wetland permits, as stated in the previous section. During the permit review process, NJDEP biologists will again evaluate the permit request with respect to threatened and endangered species and will forward the application to the USFWS for their review and consultation. As previously mentioned, the project proposes to clear 5.605 acres of trees. To avoid impacts to the listed bat species, a tree clearing timing restriction (typically October 1 through March 31) may be required as a condition of permit approval.

I. Distinctive Scenic and/or Historic Resources

As discussed in Section III. J. of this EIS, the site is mapped within an 'identified' archaeological site grid. As shown in Figure 5, the western portion of the site is within the southeastern portion of the grid; the majority of the grid extends west of Route 206. The mapped portion of the site was previously farmed (1930 Black and White Imagery, NJ-GeoWeb, Last Updated September 9, 2022). Following farming, there were several residences constructed along Route 206 in this area that have been demolished. Generally, properties which were previously farmed and developed are not considered of high archaeological potential because of the ground disturbance from the activities. Therefore, impacts to this resource are not anticipated. The project is

also not expected to impact the immediately adjacent railroad historic property, the Wilson Mettler Farmstead (ID#2555) historic property, or the Harlingen Historic District, as no construction activities are proposed off-site. Thus, the proposed project is not expected to adversely impact any known cultural or historical resources.

J. Air Quality

Short-term air quality impacts during construction are related to production of fugitive dust and generation of emissions from exhausts of construction vehicles. Mitigating measures, including dust control practices and the use of construction equipment with efficient air pollution control devices meeting applicable State/Federal specifications, will minimize adverse effects on local air quality. Long-term air quality impacts will be related primarily to vehicle exhaust emissions and heating, primarily carbon monoxide (CO), hydrocarbons, and nitrogen oxides (NOx). However, the magnitude of the environmental effects attributable to the vehicle traffic associated with the proposed project should not affect regional air quality.

K. Sound and Noise Levels

Short-term generation of noise levels elevated over existing ambient levels will be generated during the construction of the proposed development. Sound levels generated during the construction phase can be expected in the range of 66 to 78 dBA at a distance of 50 feet from construction equipment, based upon the use of best available technology for noise reduction (EPA, 1976). The construction equipment included in this range consists of backhoes, concrete mixers, bulldozers, pavers, and trucks. To minimize adverse impacts to ambient noise levels during the construction period, construction equipment will only be operated during construction periods permitted by local law. During the operational phase of the residential development, the principal sources of sound will be minor vehicular traffic, fixed mechanical equipment (e.g., air conditioning unit(s), lawn maintenance equipment (e.g., lawn mowers and leaf blowers), and human voices. Traffic generated by the proposed development and traffic along Route 206 will continue to be the principal influences on sound levels within the site and the general vicinity.

L. Energy Utilization

The primary source of energy use from the residential project will be from the daily use of gas and electric utilities by residents. Meeting current building codes and for marketing purposes, building materials, windows, and insulating material will be installed which reduce heating/cooling needs to the greatest extent practical. Energy Star rated appliances are provided for each dwelling, provided they are available, and LED lighting will be used throughout the exterior and interiors of the development, as shown on the plans (Van Cleef, 2022). The use of these products allow for the efficient and environmentally conscious use of energy.

V. ENVIRONMENTAL PERFORMANCE CONTROLS

A number of potential impacts associated with construction and operation of the proposed project were identified in Chapter IV. Environmental protective measures that can minimize or eliminate environmental impacts are summarized below. Some have already been included in the project plans; others will be implemented during the construction phases. Many of the measures identified below have already been discussed in the preceding chapter, in the context of the particular environmental features in which they are identified.

A. Drainage Plan and Soils Erosion

- Existing topography will be maintained to the greatest extent possible in the site planning to minimize the amount of grading required.
- A stabilized, crushed stone-tracking pad, construction entrance will be installed at the site entrance/exit along Route 206 to reduce tracking of sediment onto adjacent roadways during construction activities.
- Silt fencing will be erected around and/or down slope of disturbed areas to prevent sediment from being transported outside of areas within the limits of disturbance.
- Inlet sediment filters will be used on all stormwater inlets during construction activities to prevent sediment from being transported off-site.
- Upon completion of final grading, all disturbed areas will receive a final seeding and mulching in accordance with the Soil Erosion and Sediment Control Plan.
- Any side slopes shall be protected from erosion by top soiling, seeding, and mulching as soon as possible after final grading.
- All soil erosion and sediment control measures shall be kept in place until construction is complete and/or the disturbed area is stabilized.
- All work will be done in accordance with the Standards for Soil Erosion and Sediment Control in New Jersey.

B. Sewage Disposal Techniques

Wastewater generated by the development, estimated to be 15,375 gpd (average daily flow), will be conveyed to the Pike Run Wastewater Treatment Plant for treatment. This off-site treatment of wastewater will eliminate the potential for contamination of ground water by wastewater effluent.

C. Water Supply and Water Conservation Proposals

Construction of the proposed development is not expected to have an adverse impact on the ground water resources of the project area. No ground water withdrawal or wastewater disposal is proposed within the site, and no private wells will be used to supply potable water for the project. Potable water for the proposed development will be provided by the New Jersey American Water Company. The daily water demand from the development will be approximately 10,305 gpd (average daily demand).

D. Energy Conservation

To meet current building codes and for marketing purposes, building materials, windows, and insulating material will be installed which reduce heating/cooling needs to the greatest extent practical. Energy Star rated appliances are provided for each dwelling and LED lighting will be used throughout the exterior and interior of the development, as shown on the plans (Van Cleef, 2022).

E. Noise Reduction Techniques

- To minimize noise generated by construction equipment, mufflers or similar noise abatement devices will be in good operating condition on all construction machinery.
- Silencers, shields, or enclosures will be used around all stationary noise-generating equipment.
- Operation of machinery will be limited to work periods permitted by local law.

VI. LIST OF LICENSES, PERMITS AND OTHER APPROVALS

The following constitutes a list of licenses, permits and approvals required for the development application:

Table 2: List of Licenses, Permits, or Other Approvals Needed

Granting Authority	License, Permit, or Approval	Status
Montgomery Township Planning Board	Preliminary and Final Site Plan and Subdivision Approval	Subject of this application
Montgomery Township Municipal Utilities Authority	Sanitary Sewer Connection	To be submitted
Somerset County Planning Board	Preliminary and Final Site Plan and Subdivision Approval	To be submitted
Somerset-Union Soil Conservation District	Soil Erosion and Sediment Control Plan Certification	To be submitted
Delaware and Raritan Canal Commission	DRCC Stream Corridor Impact Certificate of Approval	To be submitted
NJDEP Division of Land Resource Protection	Freshwater Wetlands General Permit Nos. 2, 7, & 10A & TAW Averaging Plan	To be submitted
	Flood Hazard Area Verification & Individual Permit	To be submitted
Montgomery Township Enforcing Officer	Tree Clearing Permit	To be submitted

VII. REFERENCES

- Collins, B.R., and K. H. Anderson, 1994.** Plant Communities of New Jersey: A Study in Landscape Diversity. Rutgers University Press, New Brunswick, New Jersey.
- Dalton, R., 2003.** Physiographic Provinces of New Jersey. *New Jersey Geological Information Circular*.
- Delaware & Raritan Canal Commission (DRCC), n.d.** *Seventh Edition*, Regulations for the Review Zone of the Delaware and Raritan Canal State Park.
https://www.nj.gov/dep/drcc/pdf/drcc_regs.pdf
- Federal Emergency Management Agency (FEMA), Effective September 28, 2007.** Flood Insurance Rate Map: Somerset County, New Jersey Community Panel No. 34035C0233E.
- French, Mark, and NJGS/BWR, 2004.** Ground-Water Recharge for Somerset County, NJ.
- Montgomery Township, 1984.** The Code of the Township of Montgomery, County of Somerset, State of New Jersey. Code adopted December 20, 1984, Amended through December 31, 2017.
- Montgomery Township, December 5, 2008.** Township of Montgomery Master Plan, Master Plan and Development Regulations Periodic Reexamination Report.
<https://www.montgomerynj.gov/media/3201>
- NJDEP, Division of Fish and Wildlife (DFW), Endangered & Nongame Species Program (ENSP), 2017.** The Landscape Project, Version 3.3.
- NJDEP, Last Updated September 9, 2022.** NJDEP NJ-Geoweb online mapping program.
<https://www.nj.gov/dep/gis/geowebsplash.htm>
- NJDEP, Last amended April 6, 2020.** Surface Water Quality Standards.
- New Jersey Natural Heritage Program (NHP), 2021.** Office of Natural Lands Management (ONLM). The Natural Heritage Database.
<https://www.nj.gov/dep/parksandforests/natural/heritage/#nhdb>

NJDEP, Natural and Historic Resources (NHR), Historic Preservation Office (HPO), 2022.
NJDEP – Historic Preservation Office (HPO), New Jersey and National Registers of Historic Places, last updated September 29, 2022. New Jersey and National Registers of Historic Places. https://www.nj.gov/dep/hpo/1identify/nrsr_lists/SOMERSET.pdf

NJDEP, Historic Preservation Office (HPO), Last updated August 23, 2019. Architectural and Archaeological Site Survey. <https://www.nj.gov/dep/hpo/1identify/survarkeo.htm>

NJDEP, Natural and Historic Resources (NHR), Historic Preservation Office (HPO), 2016.
NJDEP GIS Historic Districts, Properties, and Site Grid Map of New Jersey.

New Jersey State Planning Commission, 2001. The New Jersey State Development and Redevelopment Plan. Adopted March 1, 2001.

Somerset County, 1987. Somerset County Master Plan.
<https://www.co.somerset.nj.us/home/showpublisheddocument/15925/635978698236870000>

United States Department of Agriculture – Natural Resource Conservation Service (USDA-NRCS), 2022. Custom Soil Resource Report for Somerset County, New Jersey.

United States Environmental Protection Agency (EPA), 1976. Direct Environmental Factors at Municipal Wastewater Treatment Works. EPA-430/9-76-003.

USFWS, Revised August 26, 2022. New Jersey Municipalities with Hibernation or Maternity Occurrence of Indiana Bat or Northern Long-eared Bat.
<https://www.fws.gov/sites/default/files/documents/battowns.pdf>

USFWS, 2019. USFWS Information for Planning and Consultation (IPaC) Website.
<https://ecos.fws.gov/ipac/>

Van Cleef Engineering Associates, LLC, 2022. Preliminary and Final Site Plan and Final Construction Plans Prepared for Harlingen Village Square, Lots 33, 34, 34.01, 35, 35.01, and 36 in Block 6001, Situated in Montgomery Township, Somerset County, New Jersey.

Widmer, K., 1964. The Geology and Geography of New Jersey. D. Van Nostrand Company, Inc., Princeton, New Jersey.

ATTACHMENT A

Figure 1: USGS Site Location

Figure 2: 2020 Aerial Imagery

Figure 3: SCS Soils Mapping

Figure 4: Landscape Project

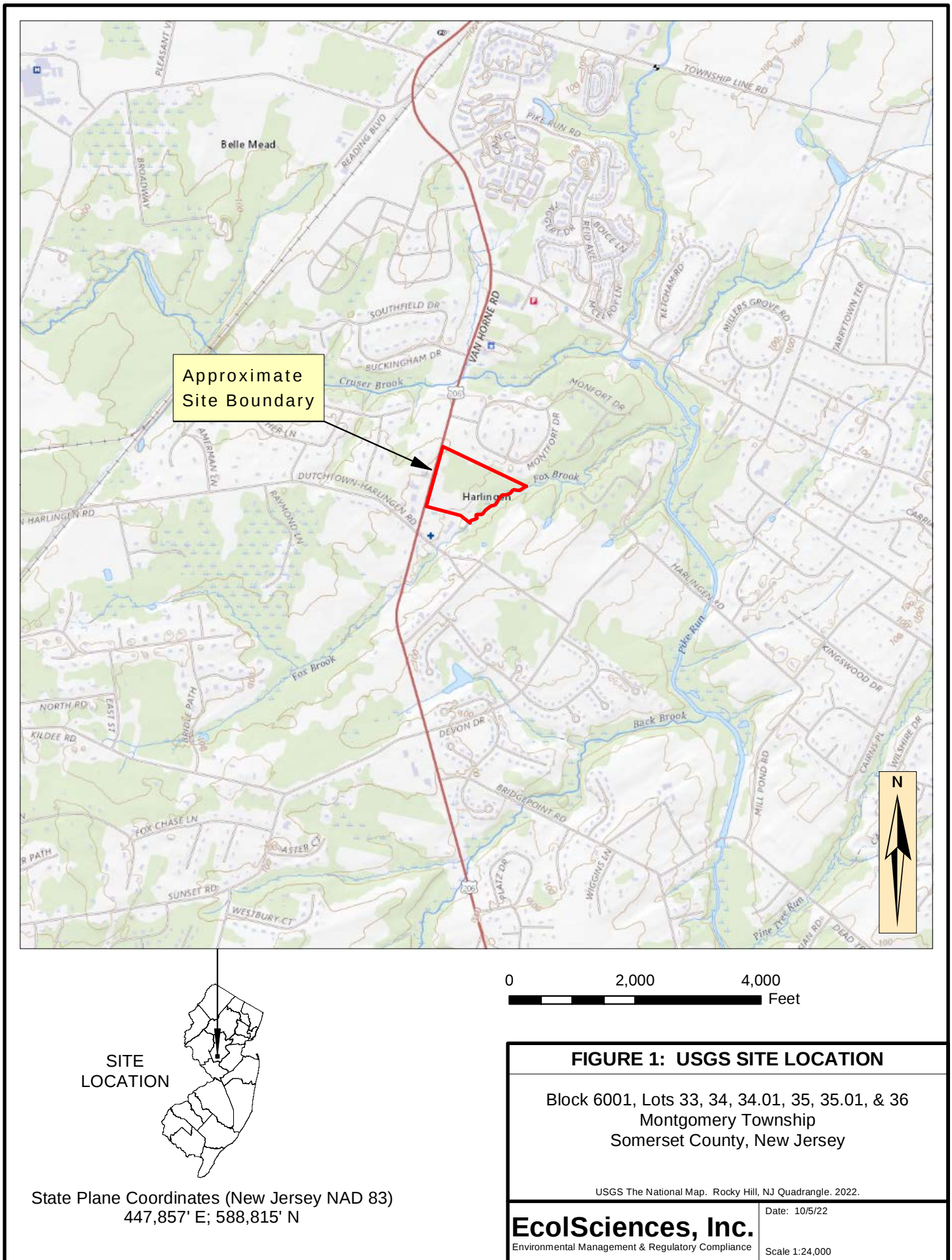
Figure 5: Historic Resources

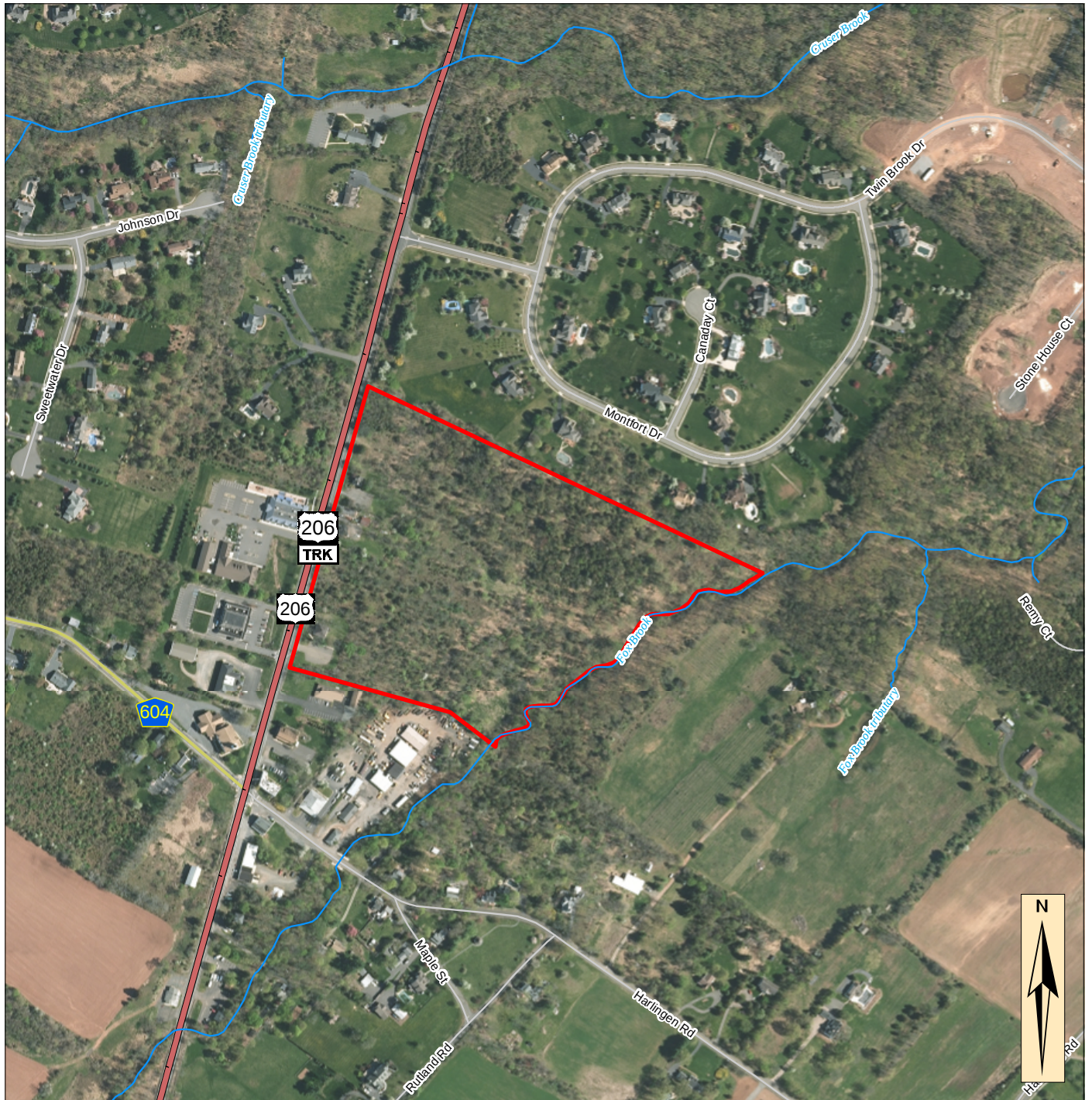
Figure 6: Aquifer Recharge Potential

Figure 7: Vegetative Communities

EcolSciences, Inc.

Environmental Management & Regulatory Compliance





0 500 1,000
Feet



Legend

- Approximate Site Boundary
- Streams

FIGURE 2: 2020 AERIAL IMAGERY

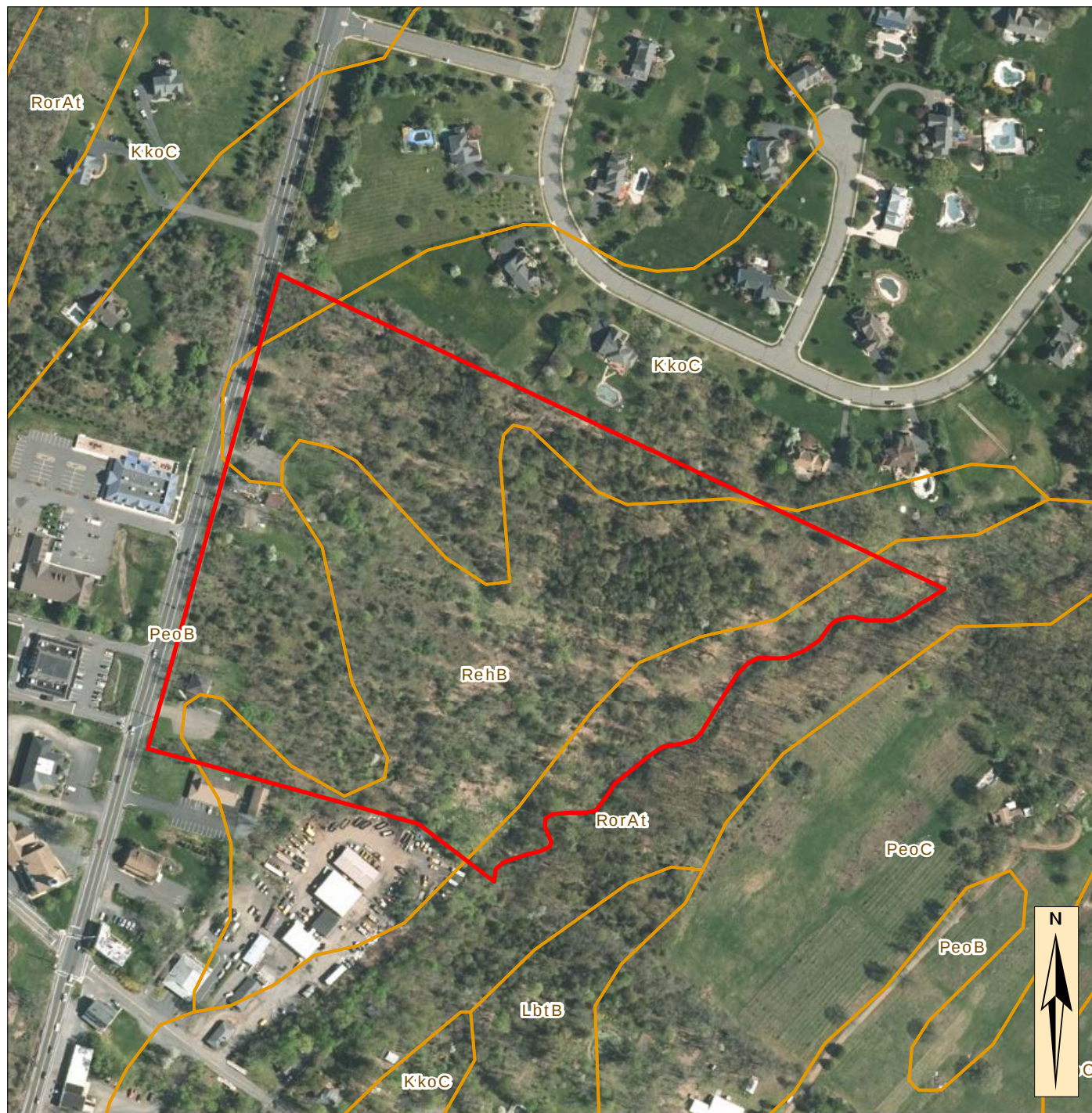
Block 6001, Lot 33, 34, 34.01, 35, 35.01 & 36
Montgomery Township
Somerset County, New Jersey

Source: NJOIT, OGIS. 2016. NJ 2015 High Resolution Orthophotography.

EcolSciences, Inc.
Environmental Management & Regulatory Compliance

Date: 10/5/22

Scale 1:6,000



0 300 600
Feet



Legend

- Approximate Site Boundary
- Soil Boundary

FIGURE 3: SOILS MAP

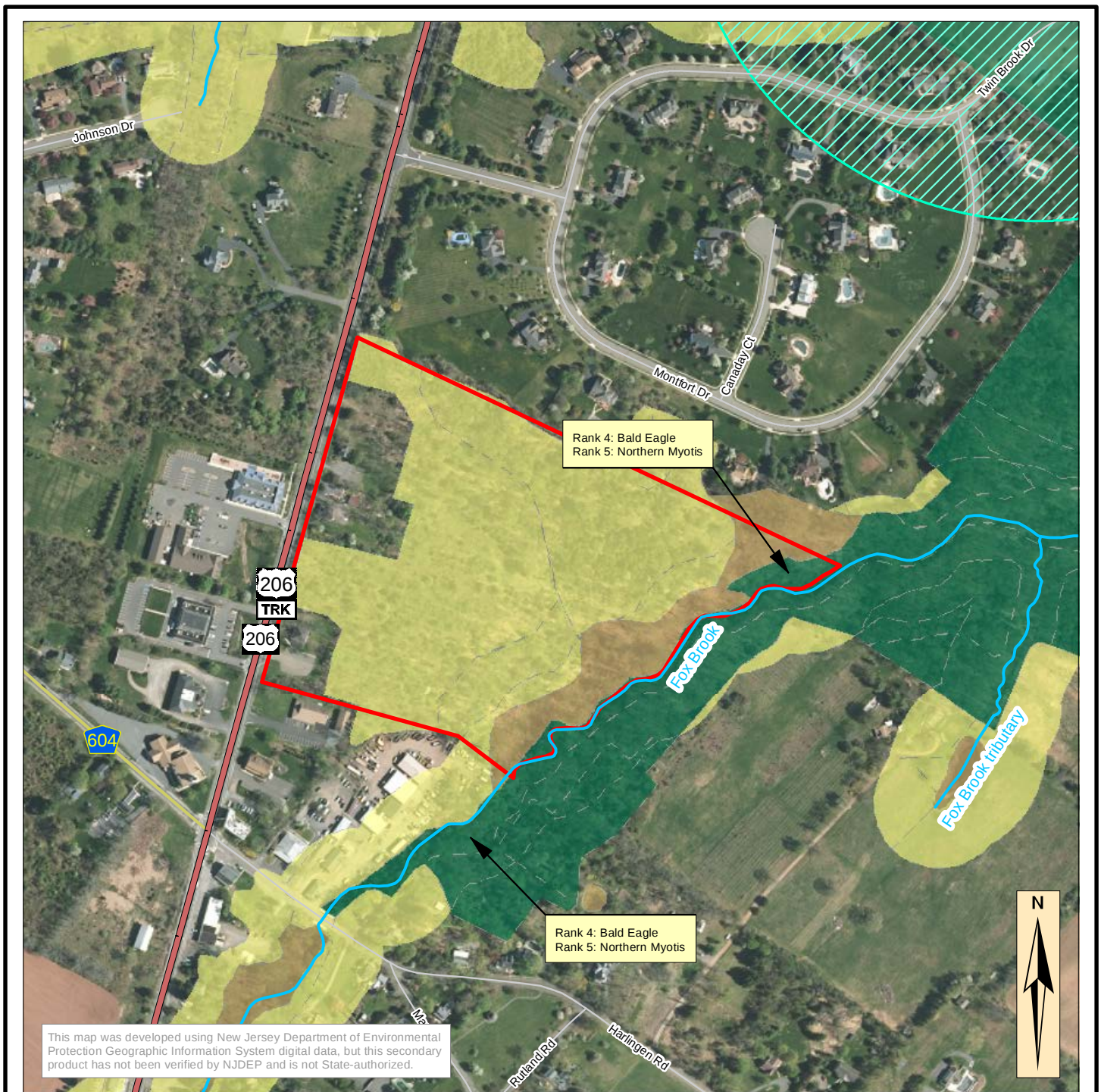
Block 6001, Lots 33, 34, 34.01, 35, 35.01, & 36
Montgomery Township
Somerset County, New Jersey

Source: NJOIT, OGIS. 2016. NJ 2015 High Resolution Orthophotography.

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Environmental Management & Regulatory Compliance

Date: 10/5/22

Scale 1:3,600



Legend

Approximate Site Boundary

Species-Based Habitat - Piedmont Plains

RANK

- Rank 1 - Habitat specific requirements
- Rank 2 - Special Concern
- Rank 3 - State Threatened
- Rank 4 - State Endangered
- Rank 5 - Federal Listed

Vernal Habitat

- Potential vernal habitat area
- Vernal habitat area

0 400 800
Feet

FIGURE 4: LANDSCAPE PROJECT

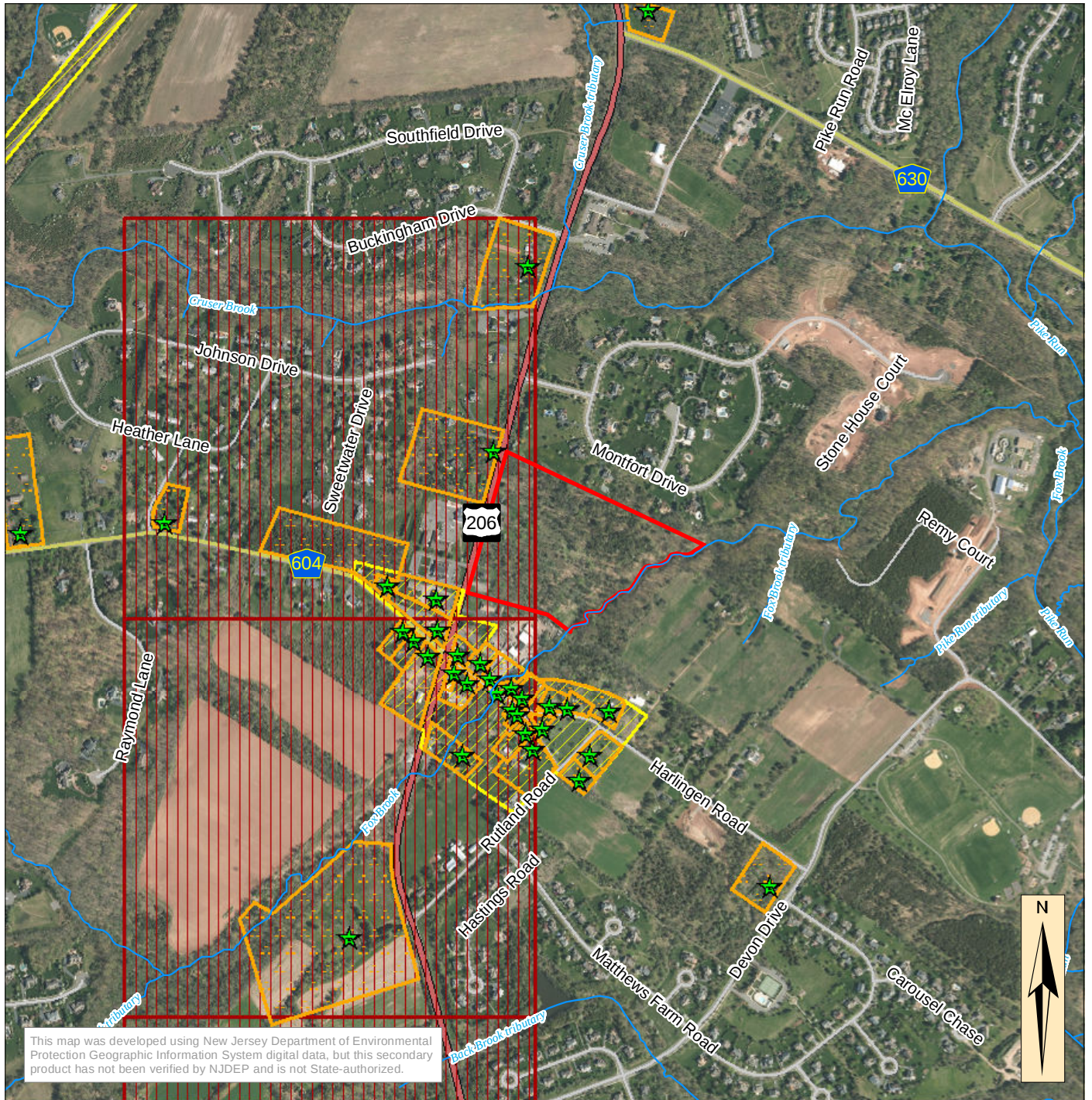
Block 6001, Lots 33, 34, 34.01, 35, 35.01, & 36
Montgomery Township
Somerset County, New Jersey

Sources:
NJDEP, DFW, ENSP. 2017. New Jersey's Landscape Project (Version 3.3).
NJOT, OGIS. 2016. NJ 2015 High Resolution Orthophotography.

EcolSciences, Inc.
Environmental Management & Regulatory Compliance

Date: 10/5/22

Scale 1:4,800



Legend

- Approximate Site Boundary
- ★ Historic Property Features
- Historic Properties
- Archaeological Site Grid
- Historic Districts

0 1,000 2,000
Feet

FIGURE 5: HISTORIC RESOURCES

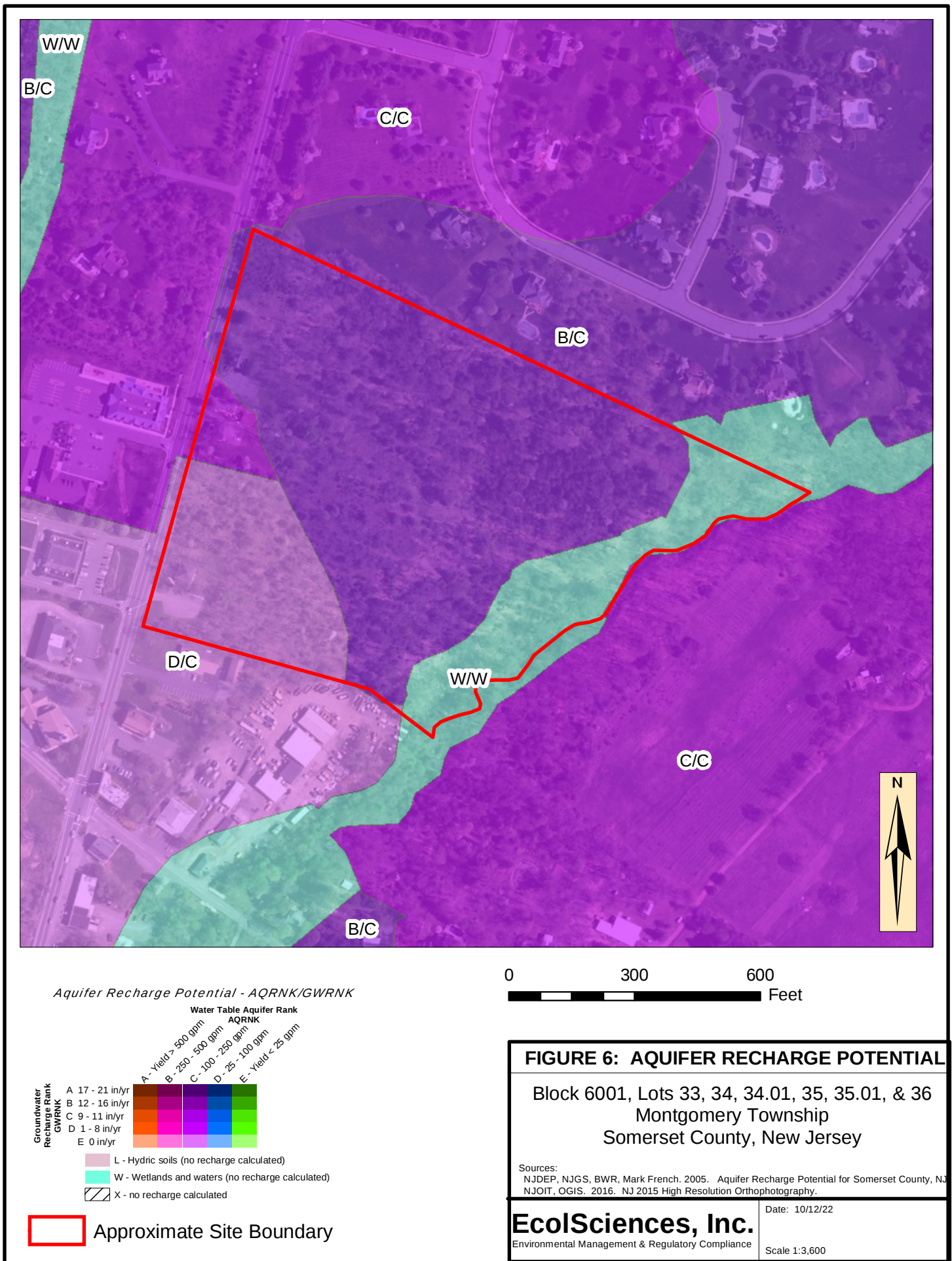
Block 6001, Lots 33, 34, 34.01, 35, 35.01, & 36
Montgomery Township
Somerset County, New Jersey

Sources:
NJDEP, NHR, HPO. 2019. NJDEP Historic Property Features, Properties, Districts, and Site Grid Map of NJ.
NJOIT, OGIS. 2016. NJ 2015 High Resolution Orthophotography.

EcolSciences, Inc.
Environmental Management & Regulatory Compliance

Date: 10/4/22

Scale 1:12,000





Legend

- Approximate Site Boundary
- Wetland
- Upland Forest
- Upland Field
- Streams

0 300 600
Feet

FIGURE 7: VEGETATIVE COMMUNITIES

Block 6001, Lot 33, 34, 34.01, 35, 35.01 & 36
Montgomery Township
Somerset County, New Jersey

Source: NJOIT, OGIS. 2016. NJ 2015 High Resolution Orthophotography.

EcolSciences, Inc.
Environmental Management & Regulatory Compliance

Date: 11/2/22

Scale 1:3,600

ATTACHMENT B

USDA NRCS Custom Soil Resource Report

EcolSciences, Inc.

Environmental Management & Regulatory Compliance



United States
Department of
Agriculture

NRCS

Natural
Resources
Conservation
Service

A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for **Somerset County, New Jersey**

**Block 6001, Lots 33, 34, 34.01, 35,
35.01, and 36; Montgomery Twp.**



July 14, 2022

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

Custom Soil Resource Report

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

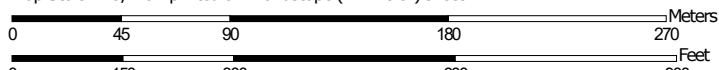
The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report Soil Map



Soil Map may not be valid at this scale.

Map Scale: 1:3,120 if printed on A landscape (11" x 8.5") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

Custom Soil Resource Report

MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features

 Blowout

 Borrow Pit

 Clay Spot

 Closed Depression

 Gravel Pit

 Gravelly Spot

 Landfill

 Lava Flow

 Marsh or swamp

 Mine or Quarry

 Miscellaneous Water

 Perennial Water

 Rock Outcrop

 Saline Spot

 Sandy Spot

 Severely Eroded Spot

 Sinkhole

 Slide or Slip

 Sodic Spot

 Spoil Area

 Stony Spot

 Very Stony Spot

 Wet Spot

 Other

 Special Line Features

Water Features

 Streams and Canals

Transportation

 Rails

 Interstate Highways

 US Routes

 Major Roads

 Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Somerset County, New Jersey
Survey Area Data: Version 19, Aug 31, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Mar 13, 2021—Sep 14, 2021

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
KkoC	Klinesville channery loam, 6 to 12 percent slopes	5.0	22.2%
PeoB	Penn channery silt loam, 2 to 6 percent slopes	4.0	17.7%
RehB	Reaville silt loam, 2 to 6 percent slopes	10.8	48.2%
RorAt	Rowland silt loam, 0 to 2 percent slopes, frequently flooded	2.6	11.8%
Totals for Area of Interest		22.4	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

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The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Somerset County, New Jersey

KkoC—Klinesville channery loam, 6 to 12 percent slopes

Map Unit Setting

National map unit symbol: 1jtb9
Elevation: 250 to 1,500 feet
Mean annual precipitation: 30 to 64 inches
Mean annual air temperature: 46 to 79 degrees F
Frost-free period: 131 to 178 days
Farmland classification: Farmland of local importance

Map Unit Composition

Klinesville and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Klinesville

Setting

Landform: Hills
Landform position (two-dimensional): Shoulder
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Fine-loamy residuum weathered from shale

Typical profile

Ap - 0 to 9 inches: channery loam
C - 9 to 11 inches: very channery loam
R - 11 to 80 inches: weathered bedrock

Properties and qualities

Slope: 6 to 12 percent
Depth to restrictive feature: 10 to 20 inches to lithic bedrock
Drainage class: Somewhat excessively drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): High (2.00 to 6.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very low (about 1.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: D
Hydric soil rating: No

Minor Components

Berks, eroded

Percent of map unit: 5 percent
Landform: Hills
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Side slope

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Down-slope shape: Convex
Across-slope shape: Linear
Hydric soil rating: No

Bucks, eroded

Percent of map unit: 5 percent
Landform: Hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Convex
Hydric soil rating: No

Penn, eroded

Percent of map unit: 5 percent
Landform: Hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Convex
Hydric soil rating: No

PeoB—Penn channery silt loam, 2 to 6 percent slopes

Map Unit Setting

National map unit symbol: 1j52v
Elevation: 250 to 1,300 feet
Mean annual precipitation: 30 to 64 inches
Mean annual air temperature: 46 to 79 degrees F
Frost-free period: 131 to 178 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Penn and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Penn

Setting

Landform: Hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Fine-loamy residuum weathered from acid reddish shale, siltstone, and fine-grain sandstone

Typical profile

Ap - 0 to 9 inches: channery silt loam
Bt - 9 to 22 inches: channery silt loam

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C - 22 to 30 inches: very channery loam

R - 30 to 80 inches: weathered bedrock

Properties and qualities

Slope: 2 to 6 percent

Depth to restrictive feature: 20 to 39 inches to lithic bedrock

Drainage class: Well drained

Runoff class: Very low

*Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.60 to 6.00 in/hr)*

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water supply, 0 to 60 inches: Low (about 4.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2e

Hydrologic Soil Group: C

Hydric soil rating: No

Minor Components

Bucks

Percent of map unit: 5 percent

Landform: Hills

Landform position (two-dimensional): Summit

Landform position (three-dimensional): Side slope

Down-slope shape: Linear

Across-slope shape: Convex

Hydric soil rating: No

Klinesville

Percent of map unit: 5 percent

Landform: Hills

Down-slope shape: Linear

Across-slope shape: Convex

Hydric soil rating: No

Reaville

Percent of map unit: 5 percent

Landform: Interfluves

Down-slope shape: Convex

Across-slope shape: Linear

Hydric soil rating: No

RehB—Reaville silt loam, 2 to 6 percent slopes

Map Unit Setting

National map unit symbol: 1j536

Elevation: 300 to 1,300 feet

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Mean annual precipitation: 30 to 64 inches

Mean annual air temperature: 46 to 79 degrees F

Frost-free period: 131 to 178 days

Farmland classification: Farmland of statewide importance

Map Unit Composition

Reaville and similar soils: 85 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Reaville

Setting

Landform: Interfluves

Down-slope shape: Convex

Across-slope shape: Linear

Parent material: Interbedded fine-grained fine-loamy residuum weathered from sandstone and siltstone and/or shale

Typical profile

Ap - 0 to 8 inches: silt loam

BA - 8 to 13 inches: silt loam

Bt - 13 to 19 inches: silt loam

C - 19 to 23 inches: channery silt loam

R - 23 to 80 inches: weathered bedrock

Properties and qualities

Slope: 2 to 6 percent

Depth to restrictive feature: 20 to 39 inches to lithic bedrock

Drainage class: Somewhat poorly drained

Runoff class: Very high

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high (0.06 to 2.00 in/hr)

Depth to water table: About 12 to 24 inches

Frequency of flooding: None

Frequency of ponding: None

Available water supply, 0 to 60 inches: Low (about 4.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3w

Hydrologic Soil Group: C

Hydric soil rating: No

Minor Components

Readington

Percent of map unit: 4 percent

Landform: Hillsides

Landform position (two-dimensional): Footslope

Landform position (three-dimensional): Base slope

Down-slope shape: Linear

Across-slope shape: Linear

Hydric soil rating: No

Bucks

Percent of map unit: 4 percent

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Landform: Hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Convex
Hydric soil rating: No

Klinesville

Percent of map unit: 4 percent
Landform: Hills
Down-slope shape: Linear
Across-slope shape: Convex
Hydric soil rating: No

Croton

Percent of map unit: 3 percent
Landform: Depressions
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

RorAt—Rowland silt loam, 0 to 2 percent slopes, frequently flooded

Map Unit Setting

National map unit symbol: 1j504
Elevation: 200 to 1,000 feet
Mean annual precipitation: 30 to 64 inches
Mean annual air temperature: 46 to 79 degrees F
Frost-free period: 131 to 178 days
Farmland classification: Farmland of local importance

Map Unit Composition

Rowland, frequently flooded, and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Rowland, Frequently Flooded

Setting

Landform: Flood plains
Down-slope shape: Concave
Across-slope shape: Linear
Parent material: Red and brown fine-loamy alluvium derived from sandstone and shale and/or conglomerate

Typical profile

A1 - 0 to 3 inches: silt loam
A2 - 3 to 10 inches: silt loam
B - 10 to 40 inches: silt loam

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2C - 40 to 65 inches: Error

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Moderately well drained

Runoff class: Negligible

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.20 to 2.00 in/hr)

Depth to water table: About 12 to 36 inches

Frequency of flooding: FrequentNone

Frequency of ponding: Frequent

Available water supply, 0 to 60 inches: Moderate (about 7.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2w

Hydrologic Soil Group: C

Hydric soil rating: No

Minor Components

Bowmansville, frequently flooded

Percent of map unit: 5 percent

Landform: Flood plains

Down-slope shape: Concave

Across-slope shape: Linear

Hydric soil rating: Yes

Birdsboro

Percent of map unit: 5 percent

Landform: Stream terraces

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Riser

Down-slope shape: Linear

Across-slope shape: Convex

Hydric soil rating: No

Raritan, rarely flooded

Percent of map unit: 5 percent

Landform: Stream terraces

Down-slope shape: Linear

Across-slope shape: Linear

Hydric soil rating: No

References

- American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.
- American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Standard D2487-00.
- Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of wetlands and deep-water habitats of the United States. U.S. Fish and Wildlife Service FWS/OBS-79/31.
- Federal Register. July 13, 1994. Changes in hydric soils of the United States.
- Federal Register. September 18, 2002. Hydric soils of the United States.
- Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.
- National Research Council. 1995. Wetlands: Characteristics and boundaries.
- Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_054262
- Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service, U.S. Department of Agriculture Handbook 436. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053577
- Soil Survey Staff. 2010. Keys to soil taxonomy. 11th edition. U.S. Department of Agriculture, Natural Resources Conservation Service. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053580
- Tiner, R.W., Jr. 1985. Wetlands of Delaware. U.S. Fish and Wildlife Service and Delaware Department of Natural Resources and Environmental Control, Wetlands Section.
- United States Army Corps of Engineers, Environmental Laboratory. 1987. Corps of Engineers wetlands delineation manual. Waterways Experiment Station Technical Report Y-87-1.
- United States Department of Agriculture, Natural Resources Conservation Service. National forestry manual. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/home/?cid=nrcs142p2_053374
- United States Department of Agriculture, Natural Resources Conservation Service. National range and pasture handbook. <http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/landuse/rangepasture/?cid=stelpdb1043084>

Custom Soil Resource Report

United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/scientists/?cid=nrcs142p2_054242

United States Department of Agriculture, Natural Resources Conservation Service. 2006. Land resource regions and major land resource areas of the United States, the Caribbean, and the Pacific Basin. U.S. Department of Agriculture Handbook 296. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053624

United States Department of Agriculture, Soil Conservation Service. 1961. Land capability classification. U.S. Department of Agriculture Handbook 210. http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_052290.pdf

ATTACHMENT C

Correspondence

EcolSciences, Inc.

Environmental Management & Regulatory Compliance



State of New Jersey

PHILIP D. MURPHY
Governor

SHEILA Y. OLIVER
Lt. Governor

DEPARTMENT OF ENVIRONMENTAL PROTECTION
Division of Land Use Regulation
Mail Code 501-02A
P.O. Box 420
Trenton, New Jersey 08625-0420
www.nj.gov/dep/landuse

CATHERINE R. McCABE
Commissioner

Todd Van Cleef
Harlingen Associates, L.L.C.
36 Brower Lane
Hillsborough, New Jersey 08844

RE: Freshwater Wetlands Letter of Interpretation: Line Verification
File No.: 1813-03-0014.2
Activity Number: FWW190001
Applicant: HARLINGEN ASSOCIATES, L.L.C.
Block: 6001; Lots: 33, 34, 34.01, 35, & 36
Montgomery Township, Somerset County

JAN 07 2020
RECEIVED
JAN 10 2020
ECOLSCIENCES, INC.

Dear Mr. Van Cleef:

This letter is in response to your request for a Letter of Interpretation to have Division of Land Use Regulation (Division) staff verify the boundary of the freshwater wetlands and/or State open waters on the referenced property.

In accordance with agreements between the State of New Jersey Department of Environmental Protection (NJDEP), the U.S. Army Corps of Engineers (USACOE) Philadelphia and New York Districts, and the U.S. Environmental Protection Agency (USEPA), the Division is the lead agency for establishing the extent of State and Federally regulated wetlands and waters. The USEPA and/or USACOE retain the right to reevaluate and modify the jurisdictional determination at any time should the information prove to be incomplete or inaccurate.

Based upon the information submitted, and upon site inspections conducted by Division staff on August 22, 2019, and October 10, 2019, the Division has determined that the wetlands and waters boundary line(s) as shown on the plan map entitled: **"WETLANDS DELINEATION PLAN OF BLOCK 6001, LOTS 33, 34, 34.01, 35 AND 36 SITUATED IN MONTGOMERY TOWNSHIP, SOMERSET COUNTY, NEW JERSEY"**, consisting of one (1) sheet, dated June 5, 2019, last revised November 21, 2019, and prepared by Pamela Mathews, New Jersey Professional Engineer & Land Surveyor of Van Cleef Engineering Associates, L.L.C., is accurate as shown.

The freshwater wetlands and waters boundary line(s), as determined in this letter, must be shown on any future site development plans. The line(s) should be labeled with the above file number and the following note:

"Freshwater Wetlands/Waters Boundary Line as verified by NJDEP"

Wetlands Resource Value Classification ("RVC")

In addition, the Division has determined that the resource value and the standard transition area or buffer required adjacent to the delineated wetlands are as follows:

Ordinary (Swale): Field Points WA-26 through WA-33 and then continuing to WA-37. [No wetland buffer]

Intermediate: The remainder of the field points. [50 foot wetland buffer]

State Open Waters: Within the delineated wetlands. [No wetland buffer]

RVC may affect requirements for wetland and/or transition area permitting. This classification may affect the requirements for an Individual Wetlands Permit (see N.J.A.C. 7:7A-9 and 10), the types of Statewide General Permits available for the property (see N.J.A.C. 7:7A-5 and 7) and any modification available through a transition area waiver (see N.J.A.C. 7:7A-8). Please refer to the Freshwater Wetlands Protection Act (N.J.S.A. 13:9B-1 et seq.) and implementing rules for additional information.

Wetlands resource value classification is based on the best information available to the Division. The classification is subject to reevaluation at any time if additional or updated information is made available, including, but not limited to, information supplied by the applicant.

General Information

Pursuant to the Freshwater Wetlands Protection Act Rules, you are entitled to rely upon this jurisdictional determination for a period of five years from the date of this letter unless it is determined that the letter is based on inaccurate or incomplete information. Should additional information be disclosed or discovered, the Division reserves the right to void the original letter of interpretation and issue a revised letter of interpretation.

Regulated activities proposed within a wetland, wetland transition area or water area, as defined by N.J.A.C. 7:7A-2.2 and 2.3 of the Freshwater Wetlands Protection Act rules, require a permit from this office unless specifically exempted at N.J.A.C. 7:7A-2.4. The approved plan and supporting jurisdictional limit information are now part of the Division's public records.

Please be advised that any surface water features on the site or adjacent to the site may possess flood hazard areas and/or riparian zones and development within these areas may be subject to the Flood Hazard Area Control Act rules at N.J.A.C. 7:13. The Division can verify the extent of flood hazard areas and/or riparian zones through a flood hazard area verification under the application procedures set forth at N.J.A.C. 7:13-5.1.

This letter in no way legalizes any fill which may have been placed, or other regulated activities which may have occurred on-site. This determination of jurisdiction extent or presence does not make a finding that wetlands or water areas are "isolated" or part of a surface water tributary system unless specifically called out in this letter as such. Furthermore, obtaining this determination does not affect your responsibility to obtain any local, State, or Federal permits which may be required.

Recording

Within 90 calendar days of the date of this letter, the applicant shall submit the following information to the clerk of each county in which the site is located, and shall send proof to the Division that this information is recorded on the deed of each lot referenced in the letter of interpretation:

1. The Department file number for the letter of interpretation;
2. The approval and expiration date of the letter of interpretation;
3. A metes and bounds description of the wetland boundary approved under the letter of interpretation;
4. The width and location of any transition area approved under the letter of interpretation; and
5. The following statement: "The State of New Jersey has determined that all or a portion of this lot lies in a freshwater wetland and/or transition area. Certain activities in wetlands and transition areas are regulated by the New Jersey Department of Environmental Protection and some activities may be prohibited on this site or may first require a freshwater wetland permit. Contact the Division of Land Use Regulation at (609) 777-0454 or <http://www.nj.gov/dep/landuse> for more information prior to any construction onsite."

Failure to have this information recorded in the deed of each lot and/or to submit proof of recording to the Division constitutes a violation of the Freshwater Wetlands Protection Act rules and may result in suspension or termination of the letter of interpretation and/or subject the applicant to enforcement action pursuant to N.J.A.C. 7:7A-22.

Appeal Process

In accordance with N.J.A.C. 7:7A-21, any person who is aggrieved by this decision may request a hearing within 30 days of the date the decision is published in the DEP Bulletin by writing to: New Jersey Department of Environmental Protection, Office of Legal Affairs, Attention: Adjudicatory Hearing Requests, Mail Code 401-04L, P.O. Box 402, 401 East State Street, 7th Floor, Trenton, NJ 08625-0402. This request must include a completed copy of the Administrative Hearing Request Checklist found at www.state.nj.us/dep/landuse/forms. Hearing requests received after 30 days of publication notice may be denied. The DEP Bulletin is available on the Department's website at www.state.nj.us/dep/bulletin. In addition to your hearing request, you may file a request with the Office of Dispute Resolution to engage in alternative dispute resolution. Please see the website www.nj.gov/dep/odr for more information on this process.

Please contact Mark Harris of our staff by e-mail at Mark.Harris@dep.nj.gov or by phone at (609) 777-0454 should you have any questions regarding this letter. Be sure to indicate the Department's file number in all communication.

Sincerely,



Tina Wolff

Environmental Specialist 3
Division of Land Use Regulation

c: Montgomery Township Clerk
Montgomery Township Construction Official
Thomas Auffenorde, EcolSciences, Inc.- Agent (original)



State of New Jersey

MAIL CODE 501-04

DEPARTMENT OF ENVIRONMENTAL PROTECTION

STATE PARKS, FORESTS & HISTORIC SITES

OFFICE OF NATURAL LANDS MANAGEMENT

501 East State Street

P.O. Box 420, Mail Code 501-04

Trenton, NJ 08625-0420

Tel. (609) 984-1339 • Fax (609) 984-0427

PHILIP D. MURPHY

Governor

SHEILA Y. OLIVER

Lt. Governor

SHAWN M. LATOURETTE

Commissioner

October 27, 2022

Alexis Coleman
EcolSciences, Inc.
75 Fleetwood Drive, Suite 250
Rockaway, NJ 07866

Re: Harlingen Village Square
Block(s) - 6001, Lot(s) - 33, 34, 34.01, 35, 35.01 & 36
Montgomery Township, Somerset County

Dear Alexis Coleman:

Thank you for your data request regarding rare species information for the above referenced project site.

Searches of the Natural Heritage Database and the Landscape Project (Version 3.3) are based on a representation of the boundaries of your project site in our Geographic Information System (GIS). We make every effort to accurately transfer your project bounds from the map(s) submitted with the Natural Heritage Data Request Form into our GIS. We do not typically verify that your project bounds are accurate, or check them against other sources.

We have checked the Landscape Project habitat mapping and the Biotics Database for occurrences of any rare wildlife species or wildlife habitat on the referenced site. The Natural Heritage Database was searched for occurrences of rare plant species or ecological communities that may be on the project site. Please refer to Table 1 (attached) to determine if any rare plant species, ecological communities, or rare wildlife species or wildlife habitat are documented on site. A detailed report is provided for each category coded as 'Yes' in Table 1.

We have also checked the Landscape Project habitat mapping and Biotics Database for occurrences of rare wildlife species or wildlife habitat in the immediate vicinity (within ¼ mile) of the referenced site. Additionally, the Natural Heritage Database was checked for occurrences of rare plant species or ecological communities within ¼ mile of the site. Please refer to Table 2 (attached) to determine if any rare plant species, ecological communities, or rare wildlife species or wildlife habitat are documented within the immediate vicinity of the site. Detailed reports are provided for all categories coded as 'Yes' in Table 2. These reports may include species that have also been documented on the project site.

We have also checked the Landscape Project habitat mapping and Biotics Database for all occurrences of rare wildlife species or wildlife habitat within one mile of the referenced site. Please refer to Table 3 (attached) to determine if any rare wildlife species or wildlife habitat is documented within one mile of the project site. Detailed reports are provided for each category coded as 'Yes' in Table 3. These reports may include species that have also been documented on the project site.

For requests submitted in order to make a riparian zone width determination as part of a Flood Hazard Area Control Act (FHACA) rule application, we report records for all rare plant species and ecological communities tracked by the Natural Heritage Program that may be on, or in the immediate vicinity of, your project site. A subset of these plant species is also covered by the FHACA rules when the records are located within one mile of the project site. One-mile searches for FHACA plant species will only report precisely located occurrences for those wetland plant species identified under the FHACA regulations as being critically dependent on the watercourse. Please refer to Table 3 (attached) to determine if any precisely located rare wetland plant species covered by the FHACA rules have been documented. Detailed reports are

NHP File No. 22-4007446-26043

provided for each category coded as 'Yes' in Table 3. These reports may include species that have also been documented on, or in the immediate vicinity of, the project site.

The Natural Heritage Program reviews its data periodically to identify priority sites for natural diversity in the State. Included as priority sites are some of the State's best habitats for rare and endangered species and ecological communities. Please refer to Tables 1, 2 and 3 (attached) to determine if any priority sites are located on, in the immediate vicinity, or within one mile of the project site.

A list of rare plant species and ecological communities that have been documented from the county (or counties), referenced above, can be downloaded from <https://nj.gov/dep/parksandforests/natural/heritage/database.html>. If suitable habitat is present at the project site, the species in that list have potential to be present.

Status and rank codes used in the tables and lists are defined in EXPLANATION OF CODES USED IN NATURAL HERITAGE REPORTS, which can be downloaded from https://nj.gov/dep/parksandforests/natural/docs/nhpcodes_2010.pdf.

Beginning May 9, 2017, the Natural Heritage Program reports for wildlife species will utilize data from Landscape Project Version 3.3. If you have questions concerning the wildlife records or wildlife species mentioned in this response, we recommend that you visit the interactive web application at the following URL, <https://njdep.maps.arcgis.com/apps/webappviewer/index.html?id=0e6a44098c524ed99bf739953cb4d4c7>, or contact the Division of Fish and Wildlife, Endangered and Nongame Species Program at (609) 292-9400.

For additional information regarding any Federally listed plant or animal species, please contact the U.S. Fish & Wildlife Service, New Jersey Field Office at <http://www.fws.gov/northeast/njfieldoffice/endangered/consultation.html>.

Information supplied by the Natural Heritage Program summarizes existing data known to the program at the time of the request regarding the biological elements (species and/or ecological communities) or their locations. They should never be regarded as final statements on the elements or areas being considered, nor should they be substituted for on-site surveys required for environmental assessments.

Thank you for consulting the Natural Heritage Program. The attached invoice details the payment due for processing this data request. Feel free to contact us again regarding any future data requests.

Sincerely,



Robert J. Cartica
Administrator

c: NHP File No. 22-4007446-26043

Table 1: On Site Data Request Search Results (6 Possible Reports)

<u>Report Name</u>	<u>Included</u>	<u>Number of Pages</u>
1. Possibly on Project Site Based on Search of Natural Heritage Database: Rare Plant Species and Ecological Communities Currently Recorded in the New Jersey Natural Heritage Database	No	0 pages included
2. Natural Heritage Priority Sites On Site	No	0 pages included
3. Rare Wildlife Species or Wildlife Habitat on the Project Site Based on Search of Landscape Project 3.3 Species Based Patches	Yes	1 page(s) included
4. Vernal Pool Habitat on the Project Site Based on Search of Landscape Project 3.3	No	0 pages included
5. Rare Wildlife Species or Wildlife Habitat on the Project Site Based on Search of Landscape Project 3.3 Stream Habitat File	No	0 pages included
6. Other Animal Species On the Project Site Based on Additional Species Tracked by Endangered and Nongame Species Program	No	0 pages included

Rare Wildlife Species or Wildlife Habitat on the Project Site Based on Search of Landscape Project 3.3 Species Based Patches
--

Class	Common Name	Scientific Name	Feature Type	Rank	Federal Protection Status	State Protection Status	Grank	Srank
<i>Aves</i>								
	Bald Eagle	Haliaeetus leucocephalus	Foraging	4	NA	State Endangered	G5	S1B,S2N
	Great Blue Heron	Ardea herodias	Foraging	2	NA	Special Concern	G5	S3B,S4N
<i>Mammalia</i>								
	Northern Myotis	Myotis septentrionalis	Active Season Sighting	5	Federally Listed Threatened	NA	G1G2	S1

Table 2: Vicinity Data Request Search Results (6 possible reports)

<u>Report Name</u>	<u>Included</u>	<u>Number of Pages</u>
1. Immediate Vicinity of the Project Site Based on Search of Natural Heritage Database: Rare Plant Species and Ecological Communities Currently Recorded in the New Jersey Natural Heritage Database	No	0 pages included
2. Natural Heritage Priority Sites within the Immediate Vicinity	No	0 pages included
3. Rare Wildlife Species or Wildlife Habitat Within the Immediate Vicinity of the Project Site Based on Search of Landscape Project 3.3 Species Based Patches	Yes	1 page(s) included
4. Vernal Pool Habitat In the Immediate Vicinity of Project Site Based on Search of Landscape Project 3.3	Yes	1 page(s) included
5. Rare Wildlife Species or Wildlife Habitat In the Immediate Vicinity of the Project Site Based on Search of Landscape Project 3.3 Stream Habitat File	No	0 pages included
6. Other Animal Species In the Immediate Vicinity of the Project Site Based on Additional Species Tracked by Endangered and Nongame Species Program	No	0 pages included

Rare Wildlife Species or Wildlife Habitat Within the Immediate Vicinity of the Project Site Based on Search of Landscape Project 3.3 Species Based Patches
--

Class	Common Name	Scientific Name	Feature Type	Rank	Federal Protection Status	State Protection Status	Grank	Srank
<i>Aves</i>	Bald Eagle	Haliaeetus leucocephalus	Foraging	4	NA	State Endangered	G5	S1B,S2N
	Great Blue Heron	Ardea herodias	Foraging	2	NA	Special Concern	G5	S3B,S4N
<i>Mammalia</i>	Northern Myotis	Myotis septentrionalis	Active Season Sighting	5	Federally Listed Threatened	NA	G1G2	S1

**Vernal Pool Habitat
In the Immediate Vicinity of
Project Site Based on Search of
Landscape Project 3.3**

Vernal Pool Habitat Type

Vernal Pool Habitat ID

Potential vernal habitat area

1765

Total number of records: 1

**Table 3: Within 1 Mile for Riparian Zone Width Determination
(6 possible reports)**

<u>Report Name</u>	<u>Included</u>	<u>Number of Pages</u>
1. Rare Plant Species Occurrences for Riparian Zone Width Determination (Flood Hazard Area Control Act Rule Application) - Within One Mile of the Project Site Based on Search of Natural Heritage Database	No	0 pages included
2. Natural Heritage Priority Sites for Riparian Zone Width Determination - Within One Mile of the Project Site	No	0 pages included
3. Rare Wildlife Species or Wildlife Habitat for Riparian Zone Width Determination - Within One Mile of the Project Site Based on Search of Landscape Project 3.3 Species Based Patches	Yes	1 page(s) included
4. Vernal Pool Habitat for Riparian Zone Width Determination - Within One Mile of the Project Site Based on Search of Landscape Project 3.3	Yes	1 page(s) included
5. Rare Wildlife Species or Wildlife Habitat for Riparian Zone Width Determination - Within One Mile of the Project Site Based on Search of Landscape Project 3.3 Stream Habitat File	No	0 pages included
6. Other Animal Species for Riparian Zone Width Determination - Within One Mile of the Project Site Based on Additional Species Tracked by Endangered and Nongame Species Program	No	0 pages included

Rare Wildlife Species or Wildlife Habitat for Riparian Zone Width Determination Within One Mile of the Project Site Based on Search of Landscape Project 3.3 Species Based Patches
--

Class	Common Name	Scientific Name	Feature Type	Rank	Federal Protection Status	State Protection Status	Grank	Srank
Aves								
	Bald Eagle	Haliaeetus leucocephalus	Foraging	4	NA	State Endangered	G5	S1B,S2N
	Bobolink	Dolichonyx oryzivorus	Breeding Sighting	3	NA	State Threatened	G5	S2B,S3N
	Brown Thrasher	Toxostoma rufum	Breeding Sighting	2	NA	Special Concern	G5	S3B,S4N
	Cooper's Hawk	Accipiter cooperii	Breeding Sighting	2	NA	Special Concern	G5	S3B,S4N
	Grasshopper Sparrow	Ammodramus savannarum	Breeding Sighting	3	NA	State Threatened	G5	S2B,S3N
	Great Blue Heron	Ardea herodias	Foraging	2	NA	Special Concern	G5	S3B,S4N
	Savannah Sparrow	Passerculus sandwichensis	Breeding Sighting	3	NA	State Threatened	G5	S2B,S4N
	Wood Thrush	Hylocichla mustelina	Breeding Sighting	2	NA	Special Concern	G4	S3B,S4N
Mammalia								
	Northern Myotis	Myotis septentrionalis	Active Season Sighting	5	Federally Listed Threatened	NA	G1G2	S1

Vernal Pool Habitat for Riparian Zone Width Determination Within One Mile of the Project Site Based on Search of Landscape Project 3.3
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Vernal Pool Habitat Type		Vernal Pool Habitat ID
Potential vernal habitat area		1749
Potential vernal habitat area		1755
Potential vernal habitat area		1765
Potential vernal habitat area		1766
Total number of records:	4	

ATTACHMENT D

Qualifications of Preparers

EcolSciences, Inc.

Environmental Management & Regulatory Compliance

THOMAS M. AUFFENORDE

EDUCATION: *M.S., 1982, Botany - Ohio University*
B.S., 1980, Biology - University of Alabama in Huntsville

AREAS OF EXPERTISE: *Wetlands Identification, Delineation, and Mitigation*
Environmental Analysis and Impact Assessment
Threatened and Endangered Species

PROFESSIONAL AFFILIATIONS: *Society of Wetland Scientists*
New Jersey Audubon Society

PROFESSIONAL CERTIFICATIONS: *Professional Wetland Scientist*
USEPA Wetland Delineation Methodology
HAZMAT-24 Hour Initial Site Operations - OSHA

EXPERIENCE:

During his 21-year employment at EcolSciences, Mr. Auffenorde has directed or participated in over 2,000 environmental projects for a wide range of clients including the development, legal, engineering and financial professions, as well as local, state and federal government agencies. His responsibilities have focused on wetland identification and delineation, wetland regulatory analysis and compliance, development impact analysis, and threatened/endangered species studies and compliance. Mr. Auffenorde routinely represents the firm's clients before State and Federal regulatory agencies as well as at the County and municipal level. A summary of Mr. Auffenorde's relevant project experience includes:

Wetland Studies

- The delineation of wetlands, and aquisition of NJDEP Letters of Interpretation, Statewide General Permits, and Transition Area Waivers on thousands of properties totalling more than 8,000 acres in the New Jersey Highlands, in the complex red-shale soils of the New Jersey Piedmont, and in the sandy soils of the New Jersey Coastal Plain.
- Design, implementation, monitoring, and coordination with state environmental agency personnel on numerous wetland mitigation projects pursuant to regulatory violations and to compensate for wetland losses from approved wetland fills.

Threatened and Endangered Species Studies

- Active in the design and implementation of numerous field studies for target Federal and State listed species identified by regulatory agencies including but not limited to Bog Turtle, Wood Turtle, Pine Barrens Tree Frog, Cooper's Hawk, Grasshopper Sparrow, Savannah Sparrow, Barred Owl, Swamp Pink, Kneiskern's Beaked Rush, Curly Grass Fern and Barratt's Sedge.

RECENT PUBLICATIONS:

2000. Persistence of Skunk Cabbage (*Symplocarpus foetidus*) in a Drained Wetland. *Wetland Journal* 12(3):23-29.
1997. Vegetation and surrounding landscape characteristics of long-eared owl (*Asio otus*) winter roosts in central New Jersey. *Records of New Jersey Birds* 23(1): 2-6.



EcolSciences, Inc.
Environmental Management & Regulatory Compliance

ALEXIS COLEMAN

EDUCATION: *B.S. 2020 – Ecology, Evolution, & Natural Resources
Rutgers University
New Brunswick, NJ
Douglass Residential College for Women*

AREAS OF EXPERTISE: *Wetland Ecology
Forest Ecology
Wildlife Conservation
Wildlife Diseases and Parasitology
Construction monitoring*

EXPERIENCE:

Ms. Coleman is an Environmental Scientist at EcolSciences. She has professional experience in education and research experience from Rutgers University in wetland and forest ecology, wildlife conservation, and wildlife diseases. Additional experience includes parasite identification in marine fish and freshwater amphibians, Giemsa staining, and DNA analysis.

Prior to joining EcolSciences, Ms. Coleman worked as a Science Lead Teacher in Bronx, NY where she was responsible for coordinating lesson plans and field trips. As a 6th grade science teacher, her curriculum was ecology and evolution based, preparing scholars for the NY State Environmental Regents Exam. Since beginning with EcolSciences, Ms. Coleman has assisted in various wetland delineations, NJDEP permitting and letter of interpretation applications, as well as providing oversight

Wetland Delineations and Permitting

- Assists in wetland and State-open-water delineations based on the Federal Manual, three-parameter approach: utilizing hydrophytic vegetation, hydric soils, and wetland hydrology, as indicators of wetland presence for private and commercial properties and utility projects.
- Prepares applications for NJDEP Freshwater Wetland Protection Act Letters of Interpretations and General Permits.

Environmental Construction Monitoring

- Serves as an environmental monitor for soil erosion and sediment control and environmental permit compliance for overhead utility line construction projects.
- Inspects utility rights-of-way (ROW) for upgrade and maintenance projects such as vegetation maintenance in environmentally sensitive areas.



EcolSciences, Inc.
Environmental Management and Regulatory Compliance

- Monitored for wood turtle (*Glyptemys insculpta*), bog turtle (*Glyptemys muhlenbergii*), and other rare reptiles and amphibians on overhead utility lines where maintenance activities such as vegetation maintenance, road repairs, and tower repairs are being conducted in New Jersey.

Geographic Information Systems

- Evaluates potential environmental constraints using land use, wetlands, vernal habitat, riparian zones, flood hazard area information, and NJDEP Landscape Project mapping for private, commercial, and major utility line projects.



THOMAS M. DIGIOVANNI

EDUCATION: *B.A., 2021 – Earth Science
The College of Arts and Sciences,
University of Pennsylvania, Philadelphia, P.A.*

**AREAS OF
EXPERTISE:** *Wetland Delineations & Regulatory Reviews
Freshwater & Terrestrial Ecology
Climate Systems & Geology
Environmental Impacts & Sustainability*

EXPERIENCE:

Mr. DiGiovanni is an Environmental Scientist with EcolSciences, Inc. and previously interned with the company during his final year of undergraduate studies. He started with the company on September 1, 2021 and has since gained professional experience with wetland and stream delineation; environmental permitting and monitoring; GIS mapping; and regulatory reviews.

In addition to his professional experience, Mr. DiGiovanni is a frequent volunteer. During the beginning of the Covid-19 pandemic he offered his assistance to a local farm where he would become familiar with handling livestock and regenerative agriculture. He also became involved with a homegrown effort to protect his town parks in ecologically sensitive areas, directing environmentally based restorative efforts to remove invasive species, reintroduce native species, and raise community awareness of ecological issues through youth education.



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Environmental Management and Regulatory Compliance